



CITY OF CARDIFF.

ANNUAL REPORT

FOR 1923

OF THE

MEDICAL OFFICER OF HEALTH.

RALPH M. F. PICKEN, B.Sc., M.B., Ch.B., D.P.H. (Camb.),

Medical Officer of Health, City and Port of Cardiff ;
School Medical Officer, Cardiff Education Authority.

Printed by Order of the Urban Sanitary Authority.

CARDIFF:

S. GLOSSOP AND SONS, LTD., NEW STREET

1924.

CITY OF CARDIFF.

HEALTH AND PORT SANITARY COMMITTEE.

Chairman :

ALDERMAN JAMES ROBINSON, C.B.E., L.R.C.S., L.R.C.P.I., J.P.

Deputy Chairman :

COUNCILLOR JOHN DONOVAN J.P.

THE LORD MAYOR (ALDERMAN SYDNEY JENKINS, J.P.).

ALDERMAN C. W. MELHUISE.

„ W. GREY.

COUNCILLOR E. CURRAN.

„ RHODA PARKER.

„ O. C. PURNELL.

„ J. TROTT.

COUNCILLOR T. WILLIAMS.

„ A. E. LOUGHER.

„ J. YOUNG.

„ J. GRIFFITHS.

„ H. W. J. POWELL.

„ BARBARA FOXLEY.

MATERNITY AND CHILD WELFARE COMMITTEE.

THE HEALTH AND PORT SANITARY COMMITTEE

WITH THE ADDITION OF

MRS. J. THOMAS, MRS. I. STONE, MRS. J. ROBINSON, AND MRS. D. JENKINS.

Staff of the Public Health Department.

(Officers entirely engaged in School Medical and Port Sanitary Services not included).

Medical Officer of Health :

RALPH M. F. PICKEN, B.Sc., M.B., Ch.B., D.P.H.

Assistant Medical Officers of Health :

Duties.

HERBERT SHEASBY, M.B., Ch.B., D.P.H.	...	School Medical Service, Port Sanitary Administration, Treatment of Venereal Diseases and Medical Inspection of Aliens.
MARY I. ADAMS, B.Sc., M.B., B.Ch., D.P.H.	...	Maternity and Child Welfare and Mental Deficiency Act.
LILLIAN M. GRIFFITHS, B.Sc., M.R.C.S., L.R.C.P.	...	School Medical Service and Maternity and Child Welfare.
HAROLD L. COULTHARD, M.D., D.P.H.	...	Do. do. do.
HELENA J. WEBSTER, B.Sc., M.B., B.Ch.	...	Do. do. do.

Chief Sanitary Inspector :

SAMUEL EVANS.*

Chief Assistant Sanitary Inspector :

W. FISHER.*

Assistant Sanitary Inspectors :

F. GLOVER.*	W. JAMES.*†	A. E. RICHARDSON.*
T. W. WARREN.*	J. T. W. ROWLES.*†	J. A. GLOVER.*†
J. W. HOLDEN.*	R. CHANT.*†	T. J. EVANS.*
G. M. MCGREGOR.*†	R. T. DAVIES.*†	S. J. MELLINGS.*
J. STRANGE.*	W. G. JONES.*	

Veterinary Inspector and Chief Meat Inspector :

P. J. MULLANE, M.R.C.V.S.

Assistant Inspectors of Meat :

T. R. EVANS.*† H. TATTERSALL.*†

Infectious Disease Inspector :

F. DAVEY.

Disinfecter and Caretaker of Mortuary :

W THOMAS.

Disinfectors and Motor Drivers :

W. WEBSTER. G. R. JOHN.

Public Analyst :

THOMAS HUGHES, F.I.C.

Public Analyst's Laboratory Attendant :

W. CHINNICK.

Senior Health Visitor :

LILLY HUNTLEY.‡§||

Health Visitors :

M. LEWIS.‡§||	F. LOCK.*‡§	R. REYNOLDS.§||
I. GREENWAY.‡§||	B. M. ROGERS.‡§	F. R. EVANS.*§||
K. POWELL.‡§	E. M. LAVERICK.§||	A. OATES.§||¶
	B. H. KING.||	

Tuberculosis Nurses :

A. F. ABBOTT.‡ A. MORGAN.‡||

Home Teacher and Visitor of the Blind :

EDITH W. MARSHALL.**

Chief Clerk :

THOMAS CHANT.*

Clerks :

A. F. MALE.*	W. E. COLSTON.	MAY MURPHY.
A. E. BRAIN.	CISSIE WILLIAMS.||	H. HALL.
R. B. POOLE.	EDNA P. MAY.	C. KERMAN.

* Cert. Royal San. Inst. † Cert. Meat Insp. Royal San. Inst. ‡ General Trained Nurse. § Certified Midwife.
 || Cert. Health Visitor, Royal San. Inst. ¶ Health Visitor's Diploma, Board of Education.
 ** Cert. College of Teachers of the Blind.

CONTENTS.

SECTION.	PAGE
INTRODUCTION	7
1. GENERAL STATISTICS :—	
Area, Population, etc.	11
Summary of Census Statistics	11
Estimates of the Population	12
2. VITAL STATISTICS :—	
Births	13
Deaths	13
Age Distribution of Deaths	14
Cancer	15
3. NOTIFIABLE DISEASES :—	
Notifications, Admissions to Hospitals and Deaths	17
Diphtheria and Scarlet Fever	17
Smallpox	18
Chickenpox	19
Vaccinal State of Population	19
Pneumonia	20
Dysentery	20
Poliomyelitis	20
Epidemic Encephalitis	22
Puerperal Fever	22
Ophthalmia Neonatorum	22
Tuberculosis :—	
Cases and Deaths	22
Known Cases	26
Sources of Notification	28
Utilisation of the Services of the Tuberculosis Physician	28
4. NON-NOTIFIABLE INFECTIOUS DISEASES :—	
Measles, Whooping Cough, etc.	32
Diarrhoea and Enteritis	32
Anthrax	32
Influenza	33
Venereal Diseases	33
5. MATERNITY AND CHILD WELFARE :—	
Maternity and Child Welfare Consultations	35
Antenatal Consultations	35
Dental Clinic	35
Institutional Treatment	36
Domiciliary Visits of Health Visitors	36
Supply of Free Milk	37
Training of Midwives	37
Midwives Practising in Cardiff	37
Medical Practitioners called in by Midwives	37
Home Nursing	38
Home Helps	38
6. HOSPITAL PROVISION	39
7. LABORATORY WORK :—	
Cardiff and County Public Health Laboratory	40
8. ACTS, BYE-LAWS AND REGULATIONS	41
9. HOUSING	42

CONTENTS—*continued.*

SECTION.	PAGE.
10. FOOD INSPECTION :—	
Meat Inspection	44
Unsound Food exposed or intended for Sale	45
Milk Inspection	46
Tubercle Bacilli in Milk	46
Routine Bacteriological Examination of Milk	47
Graded Milks	48
11. SANITARY ADMINISTRATION :—	
Sanitary Inspection of Dwelling Houses and other Premises	49
Inspection of Factories, Workshops and Workshops	51
Inspection of Shops	55
Sale of Food and Drugs Acts	55
Public Health (Milk and Cream) Regulations	56
Legal Proceedings	57
Disinfection	57
Cleansing Station	57
Mortuary	57
CHART.	
A. Scarlet Fever and Diphtheria Case-rates and Death-rates, 1890-1923 ... Facing	18
B. Percentage of Deaths from Pulmonary Tuberculosis to Deaths from All Causes between the Ages of 16-65 years, 1900-1923 ... Facing	24
APPENDIX.	
I. REPORT ON MATERNITY HOSPITAL (CARDIFF ROYAL INFIRMARY)	58
II. REPORT ON CREMATION	61
III. STATISTICAL TABLES OF BIRTHS, DEATHS AND INFECTIOUS DISEASE :—	
Table I. Births in Municipal Wards	62
" II. Causes of and Ages at Death	63
" III. Deaths from Various Causes under One Year of Age	64
" IV. Analysis of Population, Births, Deaths, etc., in Municipal Wards, etc.	65
" V. Cases of Acute Infectious Disease by Age and Sex	66
" VI. Notified Cases of Acute Infectious Disease in Municipal Wards and Cases removed to Hospital	67
IV. CARDIFF SANATORIUM: REPORT FOR 1923	68
V. CENSUS, 1921: CARDIFF AS EXTENDED IN 1922 :—	
Table I. Acreage, Population, Private Families and Dwellings	69
" II. Buildings, Dwellings, Rooms and Families	70
" III. Private Families, classified by Size of Family, Rooms Occupied and Density of Population	71
" IV. Institutions: Total Population and Inmates of Certain Classes of Institutions, etc.	72
" V. Ages (Individual Years)	73
" VI. Ages (Quinquennial Groups) and Marital Conditions	74
" VII. Occupations by Sex of Persons Aged 12 years and over	75
VI. METEOROLOGICAL OBSERVATIONS :—	
Table I. Barometric Pressure and Relative Humidity	78
" II. Temperature	78
" III. Terrestrial Radiation, Underground Temperature, Solar Radiation and Sunshine.	79
" VI. Rainfall	79
VII. MENTAL DEFICIENCY ACT, 1913: REPORT FOR 1923	80

PUBLIC HEALTH DEPARTMENT,

CITY HALL, CARDIFF,

August, 1924.

*To the Right Honourable The Lord Mayor, Aldermen and Members
of the City Council of Cardiff.*

MY LORD MAYOR, LADIES AND GENTLEMEN,

I beg to submit the Annual Report on the general public health work of this Department during the year 1923. The bulk of the Report consists of tabular returns of deaths and infectious diseases, and of work done in relation to sanitation. It is the first Report on the health of the extended City. Time has not permitted of adequate descriptive writing about the various occurrences of public health interest during the year, but some points of special interest are touched upon in the following paragraphs.

Population.—The population at June 30th, 1923, was estimated by the Registrar-General to be 226,200. Unfortunately, the figures of the Census of 1921 were vitiated by the circumstances under which they were collected, and estimation of the population for succeeding years is further complicated by the alteration of the area and municipal wards of Cardiff in 1922. Certain figures which might have been useful for estimating the population by comparison with the Census returns are not available for the extended City. In Section 1 of this Report, however, reasons are given for the view that the population given by the Registrar-General is probably an under-estimate, and that about 229,000 may be nearer the mark.

In last year's Report a somewhat elaborate analysis was given of the Census figures for Cardiff before extension. It was hoped to carry the analysis further this year and apply it to the figures for the extended City. Time and the stress of other work have not permitted of this, but a very full and careful compilation of most of the important Census data for the City as now delimited has been made by Mr. Chant, Chief Clerk in the Department, and is included in this Report (Appendix V.). I do not think that the information is available elsewhere, and this Appendix is being bound as a separate fasciculus for the use of those whose work demands information of this kind.

Birth and Mortality Rates.—The number of births registered in Cardiff and properly belonging to the City was 5,039, being at the rate of 22·3 per thousand of the population as estimated by the Registrar-General. This rate is higher than that for the unextended City in 1922 (21·6). The increase is probably due mainly to the different character of the population included in the added area. Further details of the births are given in Section 2.

The deaths from all causes numbered 2,721, the rate per thousand of the population being 12·0, *i.e.*, a little higher than the rates for 1920 and 1921 (11·3 and 11·6 respectively), but lower than in any other previous year. The number of deaths among infants under one year of age was 372, and the infant mortality 74 per thousand births. This is by far the lowest rate ever recorded in Cardiff, the nearest approach to it being the rate of 81 per thousand in 1922.

Causes of Death.—It is important to note that, as usual, a large proportion of the deaths from all causes can be grouped under a few headings. Of the 2,721 deaths, 1,527, or 56 *per cent.*, fell into five groups, *viz.*, tuberculosis 374, cancer 261, respiratory diseases (other than tuberculosis) 458, heart disease 261, and other cardio-vascular diseases 173. Of these major causes of death, tuberculosis is the only one to which any organised scheme of prevention is directed. In view of the increasing prominence which cancer is taking as a cause of death it is dealt with in some detail in the body of the Report (Section 2).

5039
2721
2318

Infectious Diseases.—The decline in the number of cases of infectious disease mentioned in previous Reports continues. It is brought out in the following table so far as the most prevalent diseases are concerned :—

Year	Cases of Diphtheria			Cases of Scarlet Fever			Total
1919	257	...	...	2,166	...	...	2,423
1920	366	...	...	1,351	...	...	1,717
1921	317	...	...	683	...	...	1,000
1922	247	...	...	363	...	...	610
1923	221	...	...	348	...	...	569

When it is remembered that the cases in 1923 are drawn from a population numbering more than 10 *per cent.* above that of 1922, the fall is all the more striking. On the other hand, Chart A. in Section 3 brings out the fact that this is no new phenomenon, but merely one of the periodic fluctuations which these diseases exhibit in their incidence over a number of years.

Some alarm was caused by the occurrence of a number of cases of smallpox in the early summer. Happily, although the disease had every opportunity of becoming widespread before it was discovered, very little extension occurred, and it was easily brought under control. It would be idle to pretend that preventive measures would be equally successful if smallpox of a virulent type obtained a hold on the community, and it is with wise foresight that steps have been taken toward providing adequate hospital accommodation for this disease in the near future.

A somewhat serious outbreak of acute poliomyelitis occurred in the autumn, which was the subject of a special article in the medical press by Dr. Coulthard. Some of the information which he has gathered is given in Section 3.

Tuberculosis.—The number of cases of tuberculosis coming to the knowledge of the Department during 1923 was 503 (388 pulmonary, 115 non-pulmonary), as compared with 483 (387 pulmonary, 96 non-pulmonary) in 1922. The increase is not more than the extension of the boundaries would account for. The limit of completeness of notification appears to have been approached, and a Circular of the Ministry issued to practitioners in August, 1923, had very little effect in the way of increasing notifications. That over 11 *per cent.* of the cases dying were previously unnotified is disappointing. This percentage may be taken as a measure of the faith of the general practitioner in the existing tuberculosis schemes. Interesting facts will be found in a summary of the results of an enquiry made by Dr. Gilchrist with the object of finding out why certain cases died without being referred to him, and some even without ever having been notified (page 28).

Attention is also directed to the interesting Chart facing page 24 (Chart B), which brings out the melancholy fact that, in spite of all the efforts made to overcome the ravages of pulmonary tuberculosis, it is actually playing a bigger rôle than ever as a cause of death at the ages when it is most fatal.

The machinery for co-ordinating the work of the Tuberculosis Institute and of this office was improved during the year.

Veneral Diseases.—Compared with 1922, there was a slight increase in the total number of new cases of venereal diseases attending for treatment during 1923, but the number was considerably less than in 1921, as will be gathered from the following statement :—

	1921	1922	1923
Cardiff Royal Infirmary	1,148	849	846
Royal Hamadryad Seamen's Hospital	868	788	821
Totals	2,016	1,637	1,667

The imperfection of the present means at our disposal for preventing these diseases has been mentioned in previous Reports, and there is no evidence that matters have improved to any extent. The most urgent problem, however, is presented by the failure for obvious reasons of a

large proportion of innocently infected women to attend the special clinics. The Maternity and Child Welfare Committee have therefore approved in principle of the policy of treating pregnant women, nursing mothers and children suffering from venereal diseases at clinics run in connection with the Maternity and Child Welfare Scheme.

Maternity and Child Welfare.—As already mentioned, the infant mortality rate of 74 per thousand births is the lowest on record, and it is reasonable, with due reservations, to attribute some part at least of the recent great decline in this rate to the activities of the Child Welfare Section of the Department. The relatively low incidence of the fatal infectious diseases of childhood, the decline in fly prevalence as the result of the gradual disappearance of the horse, the reduced consumption of alcohol among parents, and the falling birth-rate have all had, no doubt, a share in bringing about the diminution of infant deaths.

Obstacles to the full development of the antenatal side of the work were mentioned in the introduction to the last Annual Report. These have been under consideration during the year, and the Committee and the Managers of the Infirmary have adopted the scheme described in a report which is reproduced as Appendix I. At the time of writing the approval of the Ministry has not been received. The scheme, I believe, will prove one of the most satisfactory pieces of co-ordination in existence between a voluntary and a rate-aided body, providing not only for the joint treatment of the patients but also for the teaching of students, graduates, nurses and midwives through the organisation of both bodies.

Milk.—This subject was very fully dealt with in last year's Report and requires little special mention. Very difficult and laborious work has been done by Chief Inspector Evans and the Assistant Inspectors in connection with new applications for registration under the Milk and Dairies (Amendment) Act, 1922, and also for licences in terms of the Milk (Special Designations) Order. At the time of writing there are four licensed retail vendors of Grade A. milk, one producer of Grade A milk, and one licensed pasteuriser of milk in Cardiff. About 100 gallons of Grade A milk are being sold daily, evidently with satisfaction both to the dealer and the consumer. It is hoped that this trade will expand, and that the producers of Grade A milk will soon substitute tuberculin testing, or add it to, the routine veterinary inspection prescribed for herds used in the production of Grade A milk. Detailed information as to the bacteriological examination of graded and ordinary commercial milks is given in Section 10 (Food Inspection).

Refuse Disposal.—The question of the use of destructors instead of tipping gave rise to some controversy during the latter part of 1923. I had occasion to report as follows to a joint meeting of the Health and Public Works Committees on 19th October, 1923 :—

From the point of view of prevention of disease, nothing can be said against the incineration method. On the other hand, destructors when near dwelling-houses might be a great nuisance, although not a danger to health. Most of the destructors I am familiar with might be regarded as a nuisance in this sense. Tipping may be both a nuisance in the general sense and a danger to health, owing to the breeding of flies and rats. The fly danger can be overcome by careful management of the tip, and daily observations of a certain tip in the City have so far disclosed no evidence of rat-breeding. It appears, therefore, that modern methods of tip management can overcome this form of nuisance also, although I know of no other tip which is not rat-infested. I think it is obvious that if the Corporation tip on land owned by itself, such tipping is the most economical method and preferable to incineration. I have no hesitation in saying that in a place like Cardiff, where there is so much land to be reclaimed, tipping is the best method, provided that the tips are properly managed.

Disposal of the Dead.—In October I was asked to report to the Burial Board on a proposal to erect a crematorium. The terms of my report are set out in Appendix II. The Board decided to take no action in the direction of providing a crematorium in the meantime.

Open-air Swimming Ponds.—These ponds, at Llandaff and Splott, were well patronised during the year. At Mr. Pettigrew's invitation, this Department took an active interest in their sanitary state. Numerous and detailed bacteriological and chemical examinations were made by Mr. Sugden, and, acting on his advice, the Chief Officer of Parks arranged for the regular treatment of the water so as to render it innocuous. The Llandaff pond, however, became very unsightly and unattractive from the aesthetic point of view in the early autumn. In my opinion, nothing

short of continuous filtration will render this pond the attraction and the educative factor, from the hygienic standpoint, which it ought to form.

Abattoirs.—Towards the end of 1923 a deputation appointed by the Property and Markets Committee, including your Medical Officer, visited certain large cities in connection with the proposed reconstruction of Roath Market and Abattoir. A full report has been issued, and the City Engineer has been asked to prepare plans based on the experience gained during our visits of inspection.

Rivers Pollution.—Some activity in this connection was shown during the year as a result of the efforts of Lieut. Milne of the Ministry of Agriculture and Fisheries. Along with representatives of the Ministry and the County Council, this Department took part in a preliminary survey of the River Taff, the results of which are embodied in a detailed and informative report prepared by Dr. Gee of the Ministry. Efforts to form some sort of combination of Local Authorities to deal with the problem have so far proved abortive.

Mental Deficiency.—Although the work done by this Department in relation to mental deficiency is separate from our public health activities in the strict sense, it has nevertheless a very definite bearing on public health problems. Modern opinion leans towards the view that common influences—especially during the antenatal phase of life—affect the mental and physical prospect of the child; it is at least certain that existing mentally defective persons create many of the environmental problems which are the concern of the Public Health Department. For these reasons the Annual Report to the Mental Deficiency Committee is included here for the first time (Appendix VII.).

I have the honour to be,

My Lord Mayor, Ladies and Gentlemen,

Your obedient Servant,

RALPH M. F. PICKEN,

Medical Officer of Health.

Section 1.

GENERAL STATISTICS.

Area—including inland water, foreshore and Flatholm	...	13,628 acres.
Excluding foreshore and Flatholm	... ..	11,984 „
Excluding inland water, foreshore and Flatholm	...	11,580 „
Population (estimated by the Registrar-General)	... ..	226,200
Number of persons per acre (exclusive of foreshore and Flatholm)		18.9
Number of structurally separate inhabited houses (June, 1923)		38,107
Number of structurally separate inhabited houses per acre	...	3.18
Average number of persons per occupied house	... ..	5.93
Rateable value (October, 1923)	... ..	£1,596,425
Sum represented by a penny rate	... ..	£5,967

Attention should be directed to the change in certain standard statistics brought about by the extension of the boundaries. In 1922, for the old area, the number of persons per acre (exclusive of foreshore and Flatholm) was 31.6 and the number of houses per acre 5.07; in 1923, when the new area is taken into consideration, the number of persons per acre has fallen to 18.9 and the houses to 3.18. The average number of persons per occupied house has also been reduced from 6.23 to 5.93 as the result of the different type of house and family brought in by the extension. (At the Census the number of persons per occupied house in the area of the rural district now included in the City was as low as 5.30).

Further comparison between the new and old areas at the date of the Census is made in the following statement:—

SUMMARY OF CENSUS STATISTICS RELATING TO CARDIFF AS BEFORE AND AFTER EXTENSION.

	Before Extension	Added Area	After Extension
Population, 1911	182,259	13,946	196,205
Population, 1921	200,184	19,396	219,580
<i>Increase in population between 1911 and 1921:—</i>			
Persons	17,925	5,450	23,375
Percentage	9.8	39.1	11.9
<i>CENSUS, 1921:—</i>			
Area in statute acres (land and inland water)	6,489	5,495	11,984
Persons per acre	30.8	3.5	18.3

SUMMARY OF CENSUS STATISTICS—con.

	Before Extension	Added Area	After Extension
<i>Private families in dwellings :—</i>			
Private families	43,165	4,193	47,358
Population in private families	189,483	18,358	207,841
Persons per private family	4.39	4.38	4.39
Families per occupied dwelling	1.33	1.15	1.31
<i>Structurally separate dwellings :—</i>			
Occupied by private families	32,321	3,656	35,977
Vacant on Census night	570	146	716
Rooms per dwelling	6.07	5.94	6.06
Occupied rooms per person	1.03	1.18	1.04
<i>Dwellings occupied by :—</i>			
1 private family	22,671	3,140	25,811
2 private families	8,608	496	9,104
3 or more private families... ..	1,042	20	1,062
<i>Percentage of structurally separate dwellings returned as :—</i>			
Private houses	91.7	95.9	92.2
Flats, tenements, etc.	0.3	—	0.2
Attached to shops, offices, etc.	8.0	4.1	7.6

ESTIMATES OF THE POPULATION.

The population (226,200) given at the beginning of this section is the estimate of the Registrar-General. It corresponds fairly closely with the sum of last year's estimated population (223,830) for the extended City and the excess of births over deaths during the year (2,318). If the average number of persons living in each occupied house at the Census (5.77) is used as a factor with the number of houses known to be occupied at June, 1923 (38,107), and the non-private population added, the total population works out approximately at 231,500. This is probably an over-estimate, as the tendency ought to be toward a reduction in the number of persons per house as the result of the much greater activity in house-building in recent years.

Another method of estimating the population which would have been of great use, if the information had been available for the new area in the Census year, is to obtain a factor by the application of the number of registered voters in each ward to the Census population and multiply it into the number of registered voters in each year. This method has been used in a much less reliable form by taking as a basic population the Registrar-General's estimate for 1922. The number of registered voters in that year, as furnished by the Town Clerk, was 82,708 and the population (estimated) 223,830; when the factor thus obtained is placed against the voters in 1923, the population is calculated at 229,800, or not far short of the population already obtained by using the persons-per-house factor. Here, too, there is the fallacy that increasing political activity is likely to swell the voters' roll at a greater rate than the population is increasing. Moreover, as a result of the falling birth-rate, the actual number of persons arriving at voting age is probably increasing at a greater rate than the general population at the present time. Probably, however, somewhere round about 229,000 is nearer the mark than the estimate given by the Registrar-General and used in this Report. Reference to the voters' roll has also been very helpful in arriving at the ward populations given in Table IV., Appendix III.

Section 2.

VITAL STATISTICS.

BIRTHS.

The number of births registered during the year, arranged in wards and sub-divided according to sex and legitimacy, is shown in Table I, Appendix III. This table is summarised in the following brief statement :—

	Legitimate	Illegitimate	Totals
Males	2,526	77	2,603
Females	2,373	63	2,436
Totals	4,899	140	5,039
Rate per 1,000 population	21.7	0.6	22.3

The rates for former years and for other places are given for comparison :—

	Cardiff 1923	Cardiff (before extension)		England and Wales 1923	105 Great Towns 1923
		1922	1913-1922		
Birth-rate per 1,000 ...	22.3	21.6	23.0	19.7	20.4

The birth-rate in each ward is given in Table IV., Appendix III.

DEATHS.

The deaths in 1923, classified according to age and cause (Registrar-General's short list) are set out in Table II., Appendix III. The ward distribution of the deaths and the death-rates are included in Table IV., and the causes of infant deaths in Table III., Appendix III.

The following is the abbreviated extract of the death statistics required by the Ministry :—

	Males.	Females.	Total.	Death-rate per 1,000.
Deaths from all causes	1,514	1,207	2,721	12.0
Women in Childbirth :—			Deaths.	Rate per 1,000 Births.
Sepsis ... ..	...	...	9	1.79
Other causes ... ..	...	...	14	2.78
	Total	...	23	4.57
Infants under One year of Age :—			Deaths.	Rate per 1,000 Births.
Legitimate ... ..	...	...	346	71
Illegitimate ... ..	...	...	26	186
	Total	...	372	74

					Deaths.	Rate per 1,000 Population.
Measles	...	...	...	...	26	0.11
Whooping Cough	...	...	...	...	32	0.14
					Deaths.	Rate per 1,000 Births.
Diarrhoea (under 2 years)	...	...	...	...	70	13.9

Certain of these rates may be tabulated so as to compare with previous years and other places :—

	Cardiff 1923	Cardiff (before extension)		England and Wales 1923	105 Great Towns 1923
		1922	1913-1922		
Death-rate per 1,000 ..	12.0	13.2	13.7	11.6	11.6
Infant Mortality (Deaths under 1 year per 1,000 Births) ...	74	81	98	69	72
Deaths of women in Child- birth per 1,000 Births :					
Sepsis ...	1.79	2.73	1.96	1.30	—
Other Causes ...	2.78	3.41	2.75	2.51	—
Totals ...	4.57	6.14	4.71	3.81	—

Age Distribution of Deaths.—The following table shows the deaths and death-rates at several age periods :—

Age Periods—Years	Estimated Population	Number of Deaths	Death-rate per 1,000
0—5	20,078	524	26.1
5—15	42,823	77	1.8
15—25	43,289	180	4.1
25—45	68,981	439	6.4
45—65	40,530	689	17.0
65 and upwards	10,499	812	77.3
All Ages	226,200	2,721	12.0

As there were no serious epidemics of a fatal character during the year, the distribution of the death-rates at different ages may be taken as normal. The heavy death-rate in the age group 0-5 years is largely accounted for by the relatively high mortality under 1 year. The steadily increasing rate after the age of 15 years is according to expectation.

CANCER.

The deaths from cancer (malignant disease), a term which includes carcinoma and sarcoma, are analysed in the following table according to the part of the body affected and the age and sex of the deceased :—

Cancer—Malignant Disease	15-25 years		25-45 years		45-65 years		65 years and upwards		All Ages		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes
Buccal Cavity	—	—	1	—	10	2	5	—	16	2	18
Pharynx, Oesophagus, Stomach, Liver and Annexa	—	1	5	7	27	17	20	13	52	38	90
Peritoneum, Intestines and Rectum	—	—	3	3	19	8	10	7	32	18	50
Female Genital Organs	—	—	—	10	—	14	—	8	—	32	32
Breast	—	—	—	3	—	17	—	4	—	24	24
Skin	—	—	1	—	1	—	2	1	4	1	5
Other or Unspecified Organs	4	—	7	1	17	4	7	2	35	7	42
Totals	4	1	17	24	74	62	44	35	139	122	261

The total number of deaths was 261, of which 139 occurred in males and 122 in females. The preponderance of male over female deaths is evident at all age-periods except 25-45 years. Of the various parts of the body affected, 60 *per cent.* were associated with the digestive system. The age-period in which the largest number of deaths is recorded is 45-65 years, but the rate per thousand of the population living in this age group (3.3) is considerably lower than the rate among persons over 65 years (7.5).

We do not know the cause of cancer, and we have no cure which does not involve destruction of the tissues adjacent to the growth. Some things we do know, however, which have a bearing on the prevention of the disease and on the reduction of mortality from it. For instance, it has been established by reliable statisticians that cancer occurs on the average about five years earlier in the population of county boroughs than it does in rural districts, and that this is due to the earlier onset of senility in the former. To the extent, therefore, that it causes earlier deaths, cancer is a more serious problem in towns than in the country.

It is also well established that certain forms of irritation lay the parts exposed to that irritation open to the invasion of cancer. Thus, cancers of the lip and tongue are commoner in smokers, and certain trade irritants are notably associated with a heavy incidence of the disease in particular parts of the body among the workers in these trades. The association of the specific irritation in many of these instances with cancer is so striking that it is perhaps natural that there is at the present time a tendency to exaggerate the importance of this aspect of the cancer problem. The infinite variety of views as to the dietetic causes of cancer is also an example of a common tendency to argue fancifully from premises founded on the predisposing influence of irritation.

Early operation is still the surest means at our disposal for eradication of the disease. It has been, however, for many years a source of dissatisfaction with surgeons that many patients resorted to operation too late to enable them to effect a radical cure. Hitherto the organisation of the medical services, voluntary and official, has not been such as to permit of the ascertainment on any large scale of the extent of the failure to seek operation, or of the delay in doing so; and of measures being taken to follow up patients operated upon so that their subsequent progress might be definitely known. Clearly, any official advocacy of earlier operation must be founded on such reliable information as will convince the unbiassed.

For this reason the Ministry of Health have set up a Committee on Cancer to enquire into every aspect of the subject from a practical point of view. One of its sub-committees is comprised of the Medical Officers of some of the larger towns, including Cardiff. This sub-committee is concerned with the collection of the type of information which can be obtained most

readily in health departments and the consideration of the most useful action these departments can take in relation to cancer.

For the purposes of the Committee, Dr. Adams has made a special investigation of the circumstances attendant upon the deaths from cancer of the breast among women in Cardiff since January, 1923, with special reference to the duration of illness. The position in relation to the 24 such deaths which occurred in 1923 may be put very briefly as follows:—

1. *General.*

Number of Deaths from Cancer of Breast	...	...	...	24
Average Age of Cases	...	...	...	56.2 years
Percentage married or widowed	...	...	...	91.6
Number who had been operated upon	...	...	...	15
Percentage operated upon	...	...	...	62.5

2. *Particulars of fifteen cases operated upon.*

Average intervals in months between—

Discovery and medical opinion	...	...	...	14
Medical opinion and first operation	...	...	...	3
First operation and death	...	...	...	20
Discovery and death	...	...	...	38

3. *Particulars of nine cases not operated upon.*

Average intervals in months between—

Discovery and medical opinion	...	...	...	45*
Medical opinion and death	...	...	...	19*
Discovery and death	...	...	...	59

The large proportion of these women (37.5 *per cent.*) who had never been operated on for this, one of the most easily recognisable and operable forms of cancer, is striking; and the long delay in consulting a doctor even among those who ultimately underwent operation is deserving of comment. On the other hand, it will be noted that the average duration of disease so far as it was possible to ascertain, was longer among the women who were not surgically treated—a point which opens up questions as to the different types of cancer from which these women suffered and also the disastrous effect of operations too long delayed.

Questions such as these can only be answered by much more detailed and extensive enquiry. For this purpose, and also to consider the advisability of disseminating accurate but simple information regarding cancer among the people, the Health Committee have formed an Advisory Sub-Committee on Cancer and have been fortunate in securing the voluntary services of several eminent surgeons and physicians.

* Average of eight cases; information not obtainable in one case.

Section 3.

NOTIFIABLE DISEASES.

NOTIFICATIONS, ADMISSIONS TO HOSPITAL AND DEATHS.

Disease.						Cases Notified	Cases admitted to Isolation Hospital	Deaths
Smallpox	...	...	...	...	...	6	6	—
Scarlet Fever	...	...	...	...	...	348	278	2
Diphtheria	...	...	...	...	...	221	169	11
Enteric Fever	...	...	...	...	...	2	1	3*
Pneumonia	...	...	...	...	...	190†	—	219†
Puerperal Fever	...	...	...	...	...	30	—	9
Cerebro-Spinal Fever	...	...	...	...	...	2	1	3‡
Acute Poliomyelitis	...	...	...	...	...	46	—	6
Encephalitis Lethargica	...	...	...	...	...	7	2	5
Dysentery	...	...	...	...	...	7	1	3
Ophthalmia Neonatorum	...	...	...	...	...	104	—	—
Erysipelas	...	...	...	...	...	92	4	4
Malaria	...	...	...	...	...	18	—	3
Chickenpox	...	...	...	...	...	815	3	—

AGE-DISTRIBUTION OF THE CASES OF, AND DEATHS FROM, DIPHTHERIA AND SCARLET FEVER, AND THE FATALITY IN EACH AGE GROUP.

Ages					Cases Notified	Deaths	Fatality per cent.
DIPHTHERIA :—							
Under 1 year	...	...	...	...	2	...	...
1—2 years	...	...	...	...	9	1	11.1
2—3	...	...	...	...	23	4	17.4
3—4	...	...	...	...	18	2	11.1
4—5	...	...	...	...	14	1	7.1
5—10	...	...	...	...	72	3	4.2
10—15	...	...	...	...	36	...	...
15—20	...	...	...	...	22	...	...
20—35	...	...	...	...	16	...	...
35—45	...	...	...	...	5	...	...
45—65	...	...	...	...	4	...	...
All Ages	...	...	...	...	221	11	5.0
SCARLET FEVER :—							
Under 1 year	...	...	...	...	2	...	...
1—2 years	...	...	...	...	6	1	16.7
2—3	...	...	...	...	23	...	...
3—4	...	...	...	...	32	1	3.1
4—5	...	...	...	...	37	...	...
5—10	...	...	...	...	134	...	...
10—15	...	...	...	...	70	...	...
15—20	...	...	...	...	22	...	...
20—35	...	...	...	...	17	...	...
35—45	...	...	...	...	4	...	...
45—65	...	...	...	...	1	...	...
All Ages	...	...	...	...	348	2	0.6

* Including one case notified in the Port Sanitary District.

† Only such cases of pneumonia as fall into the category "Acute Primary" and "Influenzal" are notifiable. In the last column deaths from all forms of the disease are included.

‡ Including one case notified in 1922.

Comment has already been made in the introduction to this Report on the decline in the incidence of scarlet fever and diphtheria in recent years, which is shown graphically in Chart A. It is even more satisfactory to be able to record a fall in the fatality rate of diphtheria from 8.2 *per cent.* in 1921 and 6.0 in 1922 to 5.0 this year. Modern developments in the immunisation of children against diphtheria offer a method of enormously reducing the incidence of and mortality from this disease, if prejudice will allow the public to use it.

SMALLPOX.

After an interval of freedom from this disease since 1919, smallpox again occurred during the year. Only 6 cases were found in a condition which justified notification and isolation, but other 7 cases are known to have sickened and recovered before detection. These 13 cases may be placed in three groups, each having arisen by a separate introduction of infection from Gloucestershire, where smallpox was prevalent :—

	Number of Notified Cases	Number of unrecognised Cases	Totals	Date of sickening of first unrecognised Case	Date of Isolation of first recognised Case
Group A	4	4	8	1st April	5th June
„ B	1	—	1	—	7th June
„ C	1	3	4	April-May	29th June
Totals	6	7	13	—	—

The above record shows that, in connection with the first and last groups, seven cases of smallpox were moving about freely in Cardiff undetected during a period extending from 1st April to nearly the end of June. In spite of this fact, there is no evidence that they infected anyone outside of their own immediate domestic contacts, except in one instance, when a regular visitor was infected. The type of smallpox therefore appears to have been of a low degree of infectivity.

As usual, most of the cases occurred in adults who had not been vaccinated or re-vaccinated for many years, or in children who had never been vaccinated. This is brought out by the following table :—

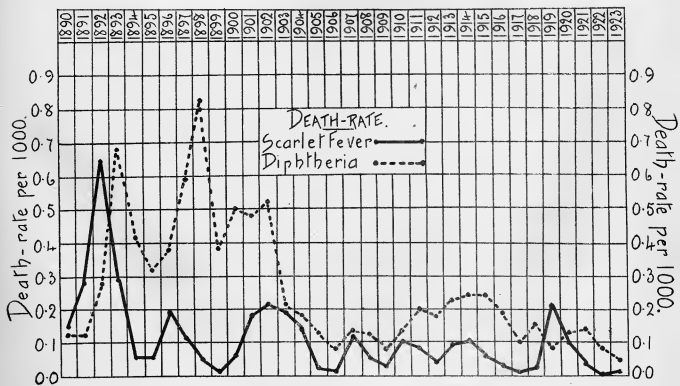
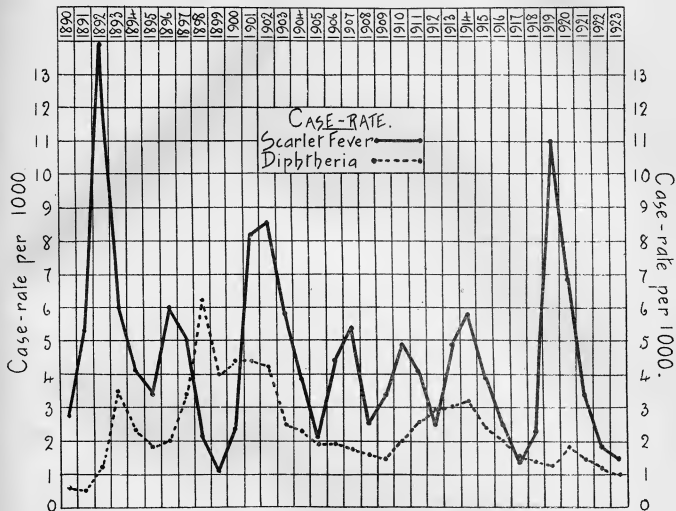
Age Period—Years	Number of Cases	Number Un- vaccinated	Number vaccinated in Infancy	Number vaccinated and re- vaccinated before Infection	Number vaccinated or re-vaccinated after Infection
Over 40	6*	1	4	...	...
20—40	3	2	1	...	...
10—20	3	2	1	...	...
Under 10	1	1	...	...	...
Totals	13	6	6	...	...

The cases were all of the very mild character characterising most of the outbreaks throughout the country. As far as could be ascertained, the incubation period was rather more irregular than in virulent smallpox, and the pre-eruptive period was variable and frequently prolonged for as much as five days. The pustular fever was absent in all six cases observed. This mild character of the disease made the differential diagnosis from chickenpox a little difficult, and the position was complicated by the occurrence of a rather heavy epidemic of chickenpox during the summer.

* Vaccinal state unknown in one case; patient left Cardiff before disease was diagnosed.

Chart A. CITY OF CARDIFF.

Scarlet Fever and Diphtheria Case-rates and Death-rates. 1890-1923.



CHICKENPOX.

To facilitate the discovery of aberrant cases of smallpox, chickenpox was made temporarily notifiable for one month by resolution of the Council on 11th June, and on 9th July notification was extended for a year until 20th July, 1924. Up to 31st December, 815 notifications were received, and of these 349 cases were visited by the medical staff. Many of the severe cases of chickenpox presented difficulty in distinguishing them from smallpox, and it is satisfactory to be able to record that no error of diagnosis was made in any case.

VACCINAL STATE OF THE POPULATION.

During and after the outbreak of smallpox there was great activity in vaccination and re-vaccination by the Public Vaccinators and private practitioners, as the following figures for June, July and August supplied by the Vaccination Officer for the area of the old city will show :—

	Public Vaccinators	Private Practitioners (approximate)
Primary vaccinations	... 1,936	141
Re-vaccinations	... 1,294	751
Totals	... 3,230	892

In addition about 500 persons were vaccinated or re-vaccinated in the added area, bringing the total up to about 4,600. The effect of smallpox is also reflected in the usual return of infant vaccinations for the year :—

Successfully Vaccinated	Insusceptible	Postponed	Certificates of Exemption	Died Unvaccinated	Unaccounted for
4,223	5	177	1,538	256	353

Comparison with previous years is made in the following table :—

	Percentage of Infants not returned as vaccinated	Percentages of Certificates of Exemption
Nine years in the period 1901 and 1910	33.5	4.3
Eight years " " 1911 and 1920	54.2	24.1
1921	42.5	29.5
1922	47.7	37.2
1923	35.5	23.5

Evidently the conscience clause was used much less in 1923 than in recent years, partly as the direct result of the presence of smallpox and partly due to the more stringent attitude adopted by the Ministry towards the issuing of forms of application for exemption.

The following table is of some interest as showing the percentage of cases of chickenpox at various ages who were vaccinated as compared with a sample of the general school population :—

Age Period	Cases of Chickenpox		Sample of School Population	
	Number	Percentage Vaccinated	Number	Percentage Vaccinated
Under 1 year	37	40.5	...	...
1—2 years	45	57.8	...	...
2—3 " "	49	42.8	...	...
3—4 " "	84	58.3	140	61.4
4—5 " "	96	60.4	1,044	58.1
5—10 " "	415	62.2	6,129	61.7
10—15 " "	68	76.5	2,920	61.6
15—20 " "	12	66.6	...	...
20—35 " "	7	85.7	...	...
35—45 " "	...	...	...	...
45—65 " "	2	50.0	...	...

The presence of vaccination has obviously no relation to the susceptibility of patients to chickenpox. The significance of the state of vaccination of school children at various ages has been commented upon in the Annual Report on the School Medical Service.

PNEUMONIA.

As in previous years the number of notifications of acute primary pneumonia fell far short of the actual number of cases, and only a few practitioners were responsible for most of the notifications. The fact that as many as 190 notifications were received, as compared with only 226 in 1922, when influenza was epidemic, suggests that rather a higher proportion of all cases were notified this year, although the number still falls short of the deaths from all forms of pneumonia, which numbered 219. This failure of notification is of little practical importance, as its observance would not appear to be very helpful either in the prediction of epidemics or in their control. Experience has shown that the medical practitioner will notify diseases readily when he realises that something useful is being done for them by the Local Authority, and not till then.

DYSENTERY.

A small outbreak of dysentery affecting four children in one family is interesting, as showing that this very dangerous disease exists in the community and only requires an insanitary environment to become a problem. The first case (a school girl) sickened early in January and recovered in four or five days; the next, also of school age, sickened a few days after the recovery of the first and was ill for about nine days; a third child, of 2 years, was the first to come under the notice of the Department—notified as enteric fever and sickening on 2nd February; finally the baby sickened on 9th February, this being the first case to show the characteristic intestinal hæmorrhage. The bacillus, of the Flexner type, was isolated from the third case by Dr. Parry Morgan. The origin of infection was not definitely traced, but the absence of any similar illness among the other scholars suggested a home infection, the suspicion being strengthened by the fact that the home was not well conducted and the father, a man of rather unsatisfactory habits, had served in the East during the war. No history of dysentery on service was obtained and bacteriological examinations of his blood, urine and feces were negative.

POLIOMYELITIS.

The existence of a considerable number of cases of acute anterior poliomyelitis (infantile paralysis) became manifest in September, and enquiry revealed the fact that a fairly serious epidemic had been in progress for some time. The facts have been dealt with in a full and interesting way by Dr. Coulthard* and only a general reference need be made here. Altogether, 46 cases occurred during the year; in addition to these there were two presumptive cases not notified and four suspicious cases. Of the 46 cases, 33 were notified by general practitioners, the remainder being discovered and notified by medical officers of the Department. Although poliomyelitis has been notifiable since September, 1912, this is the first time that any considerable number of cases has been notified. No cases came under notice during 1922, but although only 3 cases were

* "Notes on an Epidemic of Acute Anterior Poliomyelitis." (*The Medical Officer*, 8th March, 1924).

notified in 1921, there is no doubt that many more cases occurred in that year. For instance, Major Alwyn Smith had knowledge of 12 cases at the Prince of Wales' Hospital. If notification continues to be satisfactorily carried out, useful epidemiological facts as to the incidence of this disease may emerge.

Poliomyelitis, although fatal in some instances, is not a serious killing disease. It is the after-effects which matter. The following tables prepared by Dr. Coulthard in June, 1924, are therefore interesting :—

Crippling following on Poliomyelitis.

		Nil or practically Nil	Varying degrees of crippling which should not interfere with attendance at ordinary elementary schools if properly treated	Severe crippling which will probably prevent attendance at ordinary elementary schools even if thoroughly treated	Totals
1923	(a) Notified cases* ...	2	34	6	42
	(b) Doubtful cases not notified ...	3	2	...	5
1924	(a) Notified cases ...	...	4	...	4
	(b) Cases not notified ... (Several of these sickened in 1923)	...	6	...	6
Totals ...		5	46	6	57

* Includes 2 cases which were not notified till January, 1924.

Particulars regarding Treatment of the foregoing Cases of Poliomyelitis.

		Receiving no Treatment			Home Treatment (In some cases inadequate)	Attending Cardiff Royal Infirmary		Attending Prince of Wales Orthopedic Hospital		Totals
		Cured	Further observation necessary	Further treatment necessary		Regularly	Irregularly	Regularly	Irregularly	
1923	(a) Notified cases ...	1	1	1	9*	19†	6	4	1	42
	(b) Doubtful cases not notified ...	1	2	...	...	1	1	...	...	5
1924	(a) Notified cases ...	...	...	...	4	...	...	...	...	4
	(b) Cases not notified ... (Several of these sickened in 1923)	...	...	1	3	2†	...	...	...	6
Totals ...		2	3	2	16	22	7	4	1	57

* One case previously attended Cardiff Royal Infirmary; now being treated by Poor Law Medical Officer.

† One case attending Cardiff Royal Infirmary for electrical therapy and massage, also attending Prince of Wales Hospital for operative treatment.

It appears that 52 children have been more or less crippled in 1923 and the early months of 1924, and that only a small proportion of them are receiving orthopaedic attention at the Prince of Wales' Hospital, which is obviously the correct place for them. It is satisfactory to be able to record that adequate provision is likely to be made by the Council at an early date for following up and providing home supervision, outpatient and hospital treatment for these and other crippled children. Something, however, should be done for cases of poliomyelitis in the acute phase, a problem which may be easily solved if the present low prevalence of the exanthemata continues.

EPIDEMIC ENCEPHALITIS.

Seven notifications of encephalitis lethargica were received as against one in 1922. Whether this rise was due to better notification or to a real increase in the disease—a forerunner of the widespread epidemic of 1924—it is impossible to say.

PUERPERAL FEVER.

Thirty cases of puerperal sepsis came under the notice of the Department, as against 20 (old City) in 1922. The number of deaths fell from 12 to 9. The mortality rate from sepsis of women in childbirth was 1·79 per 1,000 births, as compared with 2·73 last year and 1·96, the average for the 10 years 1913–1922. The reduction is so far satisfactory but, when it is remembered that the women who died were all in the prime of life and at a period of married life when their deaths probably meant a diminished chance of survival to their young families, it is evident that this preventable cause of death constitutes a public health problem which it will be an economic gain to remove. At present hospital accommodation for puerperal fever in Cardiff is inadequate.

OPHTHALMIA NEONATORUM.

The following is a record in brief of the activity of the Maternity and Child Welfare Section of the Department in relation to ophthalmia neonatorum :—

Notifications received	...	...	...	...	...	122
Duplicate notifications	...	...	...	...	...	18
Actual number of cases notified	...	...	...	...	...	104

Treatment—

By Private Practitioners	...	...	...	...	...	23
" " " assisted by District Nurses	...	...	...	...	...	35
As hospital out-patients, with home supervision by District Nurses	...	...	...	...	...	4
At Child Welfare Clinic, assisted by District Nurses	...	...	...	...	...	35
Institutional cases	...	...	...	...	...	7

Results of Treatment—

Vision unimpaired	...	...	...	...	...	96
Vision impaired (left eye only)	...	...	...	...	...	1
Total blindness	...	...	...	...	...	—
Died	...	...	...	...	...	4
Left District	...	...	...	...	...	3

TUBERCULOSIS.

The following tables present in detail the statistics of the year in relation to new cases of, and deaths from, tuberculosis analysed according to age, sex and site of disease :—

Cases of and Deaths from Tuberculosis by Age and Sex, 1923.

Age Periods— Years	New Cases						Deaths					
	Pulmonary			Non-Pulmonary			Pulmonary			Non-Pulmonary		
	M	F	Totals	M	F	Totals	M	F	Totals	M	F	Totals
0—1 ...	1	...	1	4	4	8	1	1	2	5	3	8
1—5 ...	4	3	7	11	14	25	3	2	5	12	9	21
5—10 ...	4	3	7	7	7	14	2	2	4	2	...	2
10—15 ...	1	6	7	3	8	11	1	2	3	1	6	7
15—20 ...	22	29	51	6	6	12	11	24	35	4	1	5
20—25 ...	35	28	63	5	11	16	22	24	46	2	4	6
25—35 ...	66	43	109	9	4	13	56	23	79	4	4	8
35—45 ...	38	22	60	4	5	9	37	28	65	2	4	6
45—55 ...	36	15	51	2	...	2	25	13	38	1	2	3
55—65 ...	23	3	26	1	2	3	14	6	20	2	2	4
65 & upwards	5	1	6	1	1	2	3	2	5	1	1	2
Totals ...	235	153	388	53	62	115	175	127	302	36	36	72

Cases of and Deaths from Tuberculosis by Form of Disease and Sex, 1923.

Form of Tuberculosis	New Cases			Deaths		
	Males	Females	Totals	Males	Females	Totals
Respiratory System ...	235	153	388	175	127	302
Nervous System ...	13	14	27	13	17	30
Intestines and Peritoneum ...	10	12	22	8	3	11
Vertebral Column ...	7	6	13	4	7	11
Joints ...	3	3	6	4	3	7
Other Organs ...	18	25	43	3	2	5
Disseminated Tuberculosis ...	2	2	4	4	4	8
Totals ...	288	215	503	211	163	374

Altogether, 374 deaths occurred, 302 of them due to the pulmonary form of the disease. They were distributed as to place of death as follows:—

Glan Ely Hospital ...	...	...	12
Beechwood Hospital ...	...	...	4
Sanatoria ...	...	...	3
City Lodge (Union Hospital)	...	...	72
Cardiff Royal Infirmary ...	...	...	13
Royal Hamadryad Seamen's Hospital	...	...	9
Other Institutions ...	...	...	17
Patients' own homes	...	...	244
Total	...	...	374

Forty-two of the 374 deaths (11·2 *per cent.*) were of cases previously unknown to the Department, 24 of these being pulmonary cases (7·9 *per cent.*) and 18 non-pulmonary (25·0 *per cent.*).

The outstanding and disquieting fact is that the death-rate from tuberculosis is not declining. The rate for pulmonary tuberculosis, 1·33 per 1,000 of the population, is higher than that of last year (1·27), and equal to the average for the ten years period 1913–1922. It must be

remembered, of course, that the comparison is a little unreliable because of the different character of the population in the added areas, and it is therefore important to examine the figures for the old city during the two decennia 1902-1911 and 1912-1921. These are shown in the following table, the comparison being confined to pulmonary tuberculosis and exclusive of the years of life least subject to this form of the disease, *i.e.*, under 15 years and over 65 years of age :—

Period	Mean Population (15—65 years)	Deaths from All Causes (15—65 years)		Deaths from Pulmonary Tuberculosis (15—65 years)	
		Mean number per annum	Mean annual Death-rate per 1,000	Mean number per annum	Mean annual Death-rate per 1,000
1902-11	111,021	1,083	9.7	205	1.85
1912-21	126,245	1,203	9.5	235	1.86

It will be seen that, while the mean death-rate from all causes at these ages has declined, the rate for pulmonary tuberculosis is rather higher in the second decade. The tendency is brought out even better by Chart B, which shows graphically the proportion of all deaths due to pulmonary tuberculosis at these ages in each year since 1900. Clearly tuberculosis, in spite of all that is being done to counteract it, is becoming a bigger factor in the mortality as the years go on.

This fact raises the question of the housing conditions of the people, for the present shortage of houses and the serious extent to which multiple tenancy exists in Cardiff, offer a possible explanation of the disappointing results of the tuberculous scheme. This hypothesis is investigated in the following paragraphs.

During the year, 503 cases came to the knowledge of the Department, 388 suffering from the pulmonary form of the disease. After institutional and lodging-house cases were excluded, it was possible to ascertain accurately the condition of tenancy of the houses occupied by 368 patients :—

Number of Separate Families in House	Cases of Pulmonary Tuberculosis	Cases of Non-Pulmonary Tuberculosis	Totals
1	185	48	233
2	94	22	116
3	11	3	14
4	4	1	5
Totals ...	294	74	368

It is clearly unsatisfactory that almost 37 *per cent.* of the notified cases were living in houses occupied by more than one family, but the true significance of the figures depends on a comparison with the living conditions of the general population, as shown in the following table :—

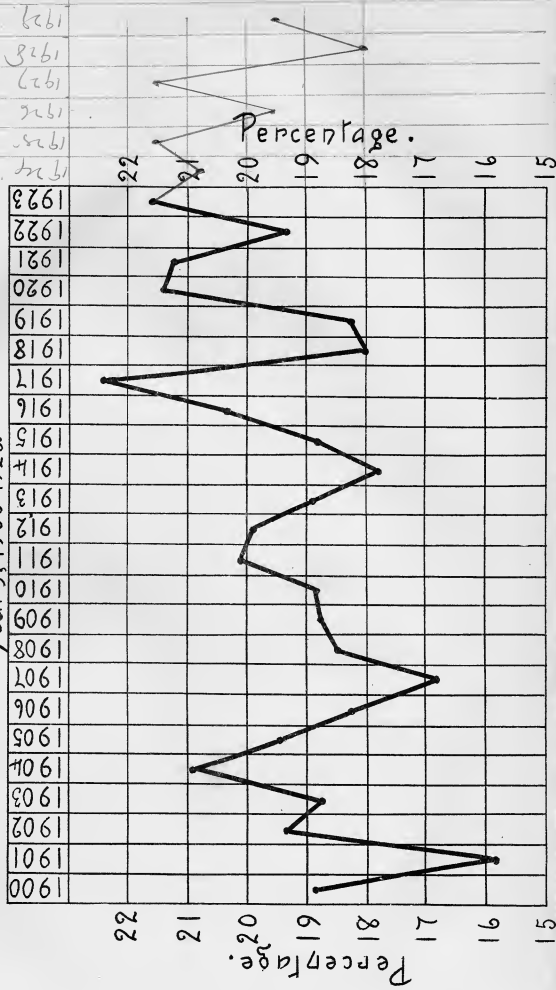
Comparison of living conditions of General Population (Census 1921) and of Cases of Tuberculosis.

Number of Separate Families per house	Percentage of all Families living in such houses (Census 1921)	Percentage of notified Cases of Tuberculosis living in such houses (1923)
1	52.5	63.3
2	39.9	31.5
3 or more	7.6	5.2

Chart B.

CITY OF CARDIFF.

Percentage of Deaths from Pulmonary Tuberculosis to Deaths from All Causes between the Ages of 15-65 Years, 1900-1923.



It is surprising to find that, in respect of multiple tenancy, the living conditions of the tuberculosis patients were better than those of the general population.

A more detailed analysis is given below, showing the actual living and sleeping conditions within their own tenements of 303 cases of pulmonary tuberculosis notified during the year :—

Living accommodation of Patients :—

Rooms in Tenement (i.e., house or part of house occupied by one family)	Patients			Total number of Persons in Household			
	Males	Females	Totals	Over 10 years	Under 10 years	Lodgers	Totals
1 room	7	5	12	17	6	2	25
2 rooms	18	18	36	83	40	...	123
3 rooms	13	10	23	84	37	...	121
4 rooms and over...	130	102	232	1,173	205	11	1,389
Totals	168	135	303	1,357	288	13	1,658

In addition to the foregoing 303 cases, 51 (41 males and 10 females) were notified as occurring in institutions, and 13 (12 males and 1 female) in lodging houses.

Sleeping Accommodation of Patients suffering from Pulmonary Tuberculosis and living in Private Houses :—

Rooms in Tenement (i.e., house or part of house occupied by one family)	Patients				Contacts		
	With Room to Self	With Bed but not Room to Self	With neither Bed nor Room to Self	Totals	Sleeping in same Bed as Patient	Sleeping in separate Bed but in same Room as Patient	Totals
1 room	4	...	8	12	11	2	13
2 rooms	2	3	31	36	43	23	66
3 rooms	9	2	12	23	16	7	23
4 rooms and over...	135	31	66	232	74	85	159
Totals	150	36	117	303	144	117	261

These tables show clearly the very grave risks to which many contacts with tuberculosis patients are exposed, only 150 of the patients, or rather less than a half, having a separate room, while in association with the remaining 153 there were intimately exposed to infection, by sharing a sleeping room, 261 persons, of whom 144 actually slept in the same bed with the patients. These, of course, were the conditions at the time of notification ; considerable improvement was effected as the result of the visits and advice of the Tuberculosis Nurses.

On the other hand, we find that only 71 of these 303 patients, or 23·4 *per cent.*, were living in small tenements of 1-3 rooms, in which exposure to infection is necessarily greater, whereas the percentage of families living in such tenements at the date of the Census was 30·1. Therefore, it would again appear that the housing state of the tuberculous patient is rather better than that of the general population, and it should be remembered that this condition of affairs had existed prior to, and is not the result of, the discovery of the disease.

All this goes to confirm the view that, however desirable it is to secure proper housing for the population, the economic factor probably takes precedence of housing as the great pre-disposing cause of tuberculosis. The difficulty of securing adequate subsistence at the present time is the likeliest reason for the relatively increased part which tuberculosis is taking as a cause of death.

Known Cases of Tuberculosis.—In the following tables the number of cases of tuberculosis on the register at 31st December, 1923, is shown, and also the number of these who were under regular observation by the Tuberculosis Nurses :—

Pulmonary Tuberculosis. Cases on the Register at 31st December, 1923.

Municipal Wards, etc.	MALES.				FEMALES.				Grand Totals
	Under 5 years.	5-15 years.	Over 15 years	Totals	Under 5 years	5-15 years	Over 15 years	Totals	
Central	1	30	31	...	1	22	23	54
Lodging Houses, etc.	9	9	...	...	...	...	9
South	1	27	28	...	1	15	16	44
Lodging Houses, etc.	2	2	...	...	...	...	2
Cathays ...	1	...	53	54	...	2	16	18	72
Adamsdown	34	34	...	2	29	31	65
Lodging Houses, etc.	8	8	...	...	...	...	8
Riverside	1	38	39	...	...	18	18	57
Canton	2	31	33	...	2	26	28	61
Grangetown	32	32	...	2	19	21	53
Roath	20	20	...	...	25	25	45
Plasnewydd	40	40	...	1	24	25	65
Sploft	3	54	57	...	3	38	41	98
Penylan	20	20	...	1	19	20	40
Llandaff	2	25	27	...	...	11	11	38
Gabalfa	1	20	21	...	1	22	23	44
Institutions*	14	14	...	...	2	2	16
Removed and not traced	10	10	...	...	11	11	21
Total ...	1	11	467	479	...	16	297	313	792

Other Forms of Tuberculosis. Cases on the Register at 31st December, 1923.

Municipal Wards, etc.	MALES.				FEMALES.				Grand Totals
	Under 5 years.	5-15 years.	Over 15 years	Totals	Under 5 years	5-15 years	Over 15 years	Totals	
Central ...	1	2	7	10	...	1	6	7	17
Lodging Houses, etc. ...	...	...	...	...	...	...	...	...	...
South ...	...	4	6	10	3	4	7	14	24
Lodging Houses, etc. ...	...	...	...	...	...	...	...	...	...
Cathays ...	2	...	13	15	...	4	15	19	34
Adamsdown ...	1	5	11	17	2	7	8	17	34
Lodging Houses, etc. ...	...	...	2	2	...	...	...	...	2
Riverside ...	1	...	3	4	...	4	8	12	16
Canton ...	...	5	4	9	1	3	7	11	20
Grangetown ...	1	3	11	15	...	2	6	8	23
Roath ...	...	2	10	12	...	...	5	5	17
Plasnewydd ...	...	3	5	8	1	5	8	14	22
Sploft ...	2	6	10	18	3	5	12	20	38
Penylan ...	...	1	4	5	...	1	10	11	16
Llandaff ...	...	2	6	8	...	2	5	7	15
Gabalfa ...	1	3	2	6	...	3	4	7	13
Institutions* ...	...	2	2	4	...	2	1	3	7
Removed and not traced ...	...	2	3	5	1	2	1	4	9
Totals ...	9	40	99	148	11	45	103	159	307

* The cases shown as being in institutions are those who permanently reside in institutions and those temporarily residing in institutions whose home addresses are unknown.

Cases of Tuberculosis under observation by Tuberculosis Nurses at 31st December, 1923.

Municipal Wards, etc.	Pulmonary			Other Forms			Grand Totals
	Males	Females	Totals	Males	Females	Totals	
Central	27	17	44	8	6	14	58
Lodging Houses, etc.	2	...	2	...	...	...	2
South	26	15	41	10	14	24	65
Lodging Houses, etc.	2	...	2	...	...	...	2
Cathays	50	21	71	14	16	30	101
Adamsdown ...	31	30	61	17	17	34	95
Lodging Houses, etc.	4	...	4	1	...	1	5
Riverside	32	16	48	4	11	15	63
Canton	31	28	59	7	10	17	76
Grangetown ...	30	20	50	14	8	22	72
Roath	16	20	36	11	5	16	52
Plasnewydd ...	31	23	54	8	13	21	75
Splott	53	40	93	17	19	36	129
Penylan	17	17	34	2	10	12	46
Llandaff	20	10	30	7	3	10	40
Gabalfa	17	21	38	3	6	9	47
Totals	389	278	667	123	138	261	928

Cases of Suspected Tuberculosis (unnotified) under observation by Tuberculosis Nurses at 31st December, 1923.

Municipal Wards	Males	Females	Totals
Central	3	2	5
South	4	4	8
Cathays	6	3	9
Adamsdown ...	2	8	10
Riverside	5	2	7
Canton	11	4	15
Grangetown ...	3	8	11
Roath	3	8	11
Plasnewydd ...	3	8	11
Splott	12	7	19
Penylan	2	4	6
Llandaff	9	5	14
Gabalfa	5	3	8
Totals	68	66	134

The actual number of known cases (1,099) is considerably reduced as compared with 1,188 last year, especially when the boundary extension is taken into consideration. The reduction is entirely due to much more thorough sifting of the cases and purging the registers of all cases whose addresses are unknown or whose diagnosis has been altered.

A satisfactory measure of this increased activity of the staff, and of our more accurate knowledge of the cases, is the larger number of notified cases under observation by the nurses (928 as compared with 791 last year), and the reduction of the number of suspects from 259 to 134 as the result of keeping them more closely under the eye of the Tuberculosis Officer.

During the year the Tuberculosis Nurses made 418 first visits and 2,352 revisits to cases of tuberculosis and suspected cases.

Sources of Notification.—These are shown in the following statement :—

Source	Pulmonary	Other Forms	Totals
General Medical Practitioners ...	197	53	250
Welsh National Memorial Association	107	25	132
Medical Officers of Institutions ...	77	31	108
Others	7	6	13
Totals	388	115	503

Utilisation of the Services of the Tuberculosis Physician.

In order to ascertain the extent to which the services of the Tuberculosis Physician were being utilised in Cardiff, an inquiry was made in 1923 regarding the deaths registered from tuberculosis during 1922. The inquiry was made by Dr. Gilchrist, and the sources of information were the monthly death returns, the records in the Public Health Department, and the card index (in some cases the case sheets) at the Tuberculosis Institute.

The following is a summary of the information submitted by Dr. Gilchrist :—

	Deaths from Tuberculosis*					
	Pulmonary	Per cent.	Non-Pulmonary	Per cent.	Total	Per cent.
Seen during life by the Tuberculosis Physician ...	159	60.2	9	15.3	168	52.0
Not seen by the Tuberculosis Physician	105	39.8	50	84.7	155	48.0
Totals	264	100	59	100	323	100

Pulmonary Cases.

(1) *Cases seen by the Tuberculosis Physician.*—Of the 159 cases of pulmonary tuberculosis seen and notified by the Tuberculosis Physician, 24 had already been notified to the Medical Officer of Health before being referred to the Tuberculosis Institute.

The intervals between notification and first attendance at the Institute of these 24 cases were as follows :—

Interval	Cases
Under 1 month	8
1— 2 months	6
2— 3 " 	3
3— 6 " 	5
6—12 " 	1
Over 12 " 	1
Total	24

* These figures differ from those in the Annual Report for 1922 as the result of the discovery of some deaths not known during that year.

In some of the cases, therefore, medical examination did not follow notification as soon as desirable. A similar state of affairs is brought out by an analysis of the history of the 159 cases of pulmonary tuberculosis prior to death. This may be shown as follows :—

Intervals between first Examination of the Patients by the Tuberculosis Physician
and Death.

Interval	Cases
Under 3 months	31
3— 6 months	31
6—12 „	32
1— 2 years	25
2— 3 „	10
3— 4 „	8
4— 5 „	7
5— 6 „	6
6— 7 „	2
7— 8 „	4
8— 9 „	1
9—10 „	1
Over 10 years	1
Total	159

A large proportion of the patients were evidently hopeless cases before they reached the Tuberculosis Physician. Seventy-five *per cent.* lived less than two years from the first attendance, and only 25 *per cent.* for periods varying from two to ten years. The average duration of life from the first attendance at the Institute was from 21 to 24 months (three months being taken as the unit). This compares unfavourably with the experience in some other places.

Of the 159 cases of pulmonary tuberculosis seen by the Tuberculosis Physician, 70 received institutional treatment, as under :—

Sanatorium treatment (one period)	15
Hospital treatment (one period)	42
Institutional treatment (two or more periods)	13
Total	70

Thirty-nine of the deaths occurred in institutions—28 in sanatoria or hospitals of the Memorial Association and 11 in other institutions, mainly the City Lodge.

The following may be given as the reasons for some of the cases not receiving institutional treatment. These are not exhaustive but given as examples only :—

Refused institutional treatment	4
Would not attend Institute or follow advice	11
Left institutions against advice	3
Arab seamen	4
Delayed attending Institute against Doctor's advice	2

(2) *Cases not seen by the Tuberculosis Physician.*—The following are the facts in relation to the 105 cases who died without having been seen by the Tuberculosis Physician.

Intervals between Notification and Death.

Interval	Cases
Under 1 month	27
1— 2 months	6
2— 3 " 	3
3— 6 " 	9
6—12 " 	5
3½ years	1
5 years	1
Not notified before death	52
	53
Total	105

The average time between notification and death of the 52 notified cases was five months (one month being taken as the unit); omitting the last two cases the average was three months. It is clear that the failure of the great majority of these cases to come under the notice of the Tuberculosis Physician was due to delay in, or omission of, notification.

As an illustration of what happens in individual cases the following may be quoted :—

Given as " thirty years history " ; not notified.
 Notified five years before ; would not attend Institute.
 Fifteen months history ; not notified.
 History given as one year ; not notified.
 History given as one year ; notified two days before death.
 Ten months history ; not notified.
 Six months history ; not notified.
 Six months history ; notified on day of death.

The following analysis shows the types of cases which most frequently fail to come under observation :—

Arabs	14
Other foreigners	2
Infants	1
Elderly persons	7
Acute cases	6
Refused to attend Institute	5
Did not seek medical advice until too late	4
Tramps	2
Institutional cases, such as—	
City Lodge Hospital	20*
Mental Hospital	6†
Other Hospitals	8
Other Institutions	3

Omitting the last two categories and taking half the number of deaths in the City Lodge Hospital as vagrants, we have 57 cases where there is a reasonable explanation of their not having been seen, leaving 48 cases in which no reason can be found to account for their not being referred to the Tuberculosis Physician—approximately 18 *per cent.* of the 264 pulmonary cases. No doubt some of the factors already mentioned would explain the omission to refer several of these cases if complete information were available.

* Many of these would be of the vagrant class.

† These may be fairly accounted for.

Non-Pulmonary Cases.

A review of the 59 non-pulmonary cases shows that 33 were not notified, a few of these being chronic cases, others extremely acute, and in some the diagnosis only being reached after death. In the majority of cases not referred to the Tuberculosis Physician factors were found which might reasonably account for this. This will be seen in the following analysis :—

The factor of nationality*	6
Infants ; mostly acute, hopeless cases	13
Patients aged 60 or over	6
Post-operative diagnosis	1
Other very acute cases ; hopeless when first seen by their own doctors	20
Total	46

There remain after these deductions four cases in which no reason is known to account for their not being referred to the Tuberculosis Physician—approximately 7 *per cent.* of the 59 cases.

Summary.—Put briefly, it may be said that of all the patients dying of tuberculosis during 1922, rather less than half were unknown to the Tuberculosis Physician during life (40 *per cent.* of pulmonary cases and 85 *per cent.* of non-pulmonary). When the records of these patients are analysed, it is estimated that only 18 *per cent.* of the pulmonary cases and 7 *per cent.* of the non-pulmonary were unknown to him for reasons of which there is no sufficient explanation. Obviously there is little clinical advantage deriving from notification or medical consultation in the case of those suffering from the acute forms, which constitute so large a proportion of the deaths from non-pulmonary tuberculosis.

Taken generally, however, this analysis brings out the fact that there is great delay in notification, and apparently a disinclination in some quarters to utilise the services of the Tuberculosis Physician, which is a matter for regret. While it is probable that a similar analysis of deaths occurring in 1923 would show some improvement in both respects, the position must be regarded as very far from satisfactory.

BOVINE TUBERCULOSIS.

Statistics bearing on this aspect of the subject will be found in Section 10, which deals with food inspection.

* Arabs, for instance, are a difficult problem. This type of case is usually acute, and may not go to a doctor until very ill.

Section 4.

NON-NOTIFIABLE INFECTIOUS DISEASES.

MEASLES, WHOOPING COUGH, ETC.

It is interesting to observe that the present low incidence of the notifiable acute infectious diseases is also exhibited by the more serious of the acute infections which are not generally notifiable, viz., measles and whooping cough. The deaths from measles numbered 26, being at the rate of 0·11 per thousand of the population, as compared with a rate of 0·07 last year (old City), and 0·16, the average for the ten years 1913–1922. Whooping cough was responsible for 32 deaths or 0·14 per 1,000, as against 0·20 in 1922 and an average of 0·18 from 1913 to 1922. Together these two diseases, even in non-epidemic periods, cause more deaths than all the other epidemic diseases combined, with the exception of epidemic diarrhoea of children and influenza during its periodical outbursts.

The number of cases of the non-notifiable diseases was not known even approximately, but the following cases came under notice through the school organisation :—

Measles	...	...	...	...	...	523
German measles	...	...	...	...	...	4
Whooping cough	...	...	...	...	...	122
Mumps	...	...	...	...	...	116

The incidence of these diseases was, of course, very much higher than this. If, for instance, the fatality of measles be taken as about one *per cent.*, it may be concluded from the number of deaths that probably 2,600 cases occurred at all ages, and whooping cough is likely to have affected almost an equal number of children. As the after-effects, quite apart from the fatality, of these diseases are grave and far reaching, it is obvious that in the aggregate they constitute a public health problem for which it is urgently necessary to find a solution. In the meantime the signs point to a gradual increase of epidemic prevalence.

DIARRHOEA AND ENTERITIS.

Altogether 70 deaths of children under 2 years were returned as from these causes, 34 occurring in the third quarter of the year, when epidemic diarrhoea is most likely to be prevalent. The rate per 1,000 births was 13·9, as compared with 5·9 last year and 18·7, the mean rate for the 10 years 1913–1922. More than half the deaths occurred in five wards, viz., Central 9, Adamsdown 6, Canton 7, Grangetown 7, Gabalfa 8. In view of the fears expressed as to the dangers of refuse-tipping in Roath and Splott, it is satisfactory to record that only three and five deaths respectively occurred there, the rates in both wards being well below the average.

ANTHRAX.

No cases occurred during the year, but in view of the facts mentioned in the Reports for 1921 and 1922, samples of hide thongs from orange boxes imported at the docks were again submitted to Dr. Parry Morgan, whose reports may be summarised as follows :—

Date	Consignment Labelled						Result
1923							
27th February	...	"Magdalena Almela Garcia,"	Burriana	...	...	...	Negative.
27th	...	"Rausell Hermanos,"	Sagunto	...	...	...	Positive.
27th	...	"Bautista Faudos Tijedo,"	Burriana	...	...	...	Negative.
27th	...	"Jesus Ripolles Granell"		...	...	...	Negative.
27th	...	"Evaristo Ferrer Sales,"	Burriana	...	...	...	Negative.
27th	...	"Bautista Faudos Almela,"	Carcagente	...	...	...	Positive.

Date	Consignment Labelled						Result
1923							
11th March	...	"Jose Fuster Gonzales,"	Burriana	...	...	...	Negative.
11th	"	"Barnabe Montoya,"	Alicante	...	...	...	Negative.
11th	"	"Francisco Enrique Monsonis,"	Alcira	...	...	...	Negative.
11th	"	"Bautista Tijedo,"	Coria, Burriana	...	...	...	Negative.
11th	"	"Bautista Soler Marti,"	Burriana	...	...	...	Negative.
11th	"	"Bautista Soler Hijo,"	Burriana	...	...	...	Negative.
20th	"	"Matildeta" (Black Cat),	Burriana	...	...	...	Negative.
20th	"	"J. Garcia Rochera,"	Burriana	...	...	...	Negative.
20th	"	"Bautista Faudos Tijedo,"	Burriana	...	...	...	Negative.
20th	"	"Vicentita B.T. Vicente,"	Burriana	...	...	...	Negative.
20th	"	"Magdalena Almela Garcia,"	Burriana	...	...	...	Negative.
20th	"	"The Liver Brand,"	Burriana	...	...	...	Negative.
16th December	...	"Jose Canos,"	Burriana	...	...	...	Negative.
16th	"	"Capella Balaguer,"	Gandia	...	...	...	Negative.
16th	"	"Elias Palomera Palmer,"	Carcagente	...	...	...	Negative.

A higher proportion of positive results was obtained from similar material at the Glasgow Public Health Laboratories. Obviously those interested have been successful in obstructing the drastic action which the Spanish Government were prepared to take to prevent the spread of anthrax in this way.

INFLUENZA.

No epidemic occurred during the year, only 26 deaths from this cause being specifically recorded. That the year was normal in this respect is shown by the following statement of the proportion of all deaths due to influenza and respiratory diseases:—

	(1)	(2)	(3)
	Deaths from all Causes.	Deaths from Influenza and Respiratory Diseases.	Percentage of (2) in (1).
1917	2,433	471	19.4
1918	3,188	1,073	33.6
1919	2,652	666	25.1
1920	2,411	424	17.6
1921	2,452	429	17.5
1922	2,704	758	28.0
1923	2,721	484	17.8

The years 1918, 1919 and 1922 were, of course, epidemic years, and were therefore subject to an abnormally heavy proportion of deaths from these causes.

VENEREAL DISEASES.

Apart from revision of the agreements with the Cardiff Royal Infirmary and the Royal Hamadryad Seamen's Hospital, to provide for altered conditions, the scheme continued along the lines now well established. It suffers from the defect that the treatment centres are not an integral part of the public health organisation and treatment inevitably takes precedence of prevention.

The following is a summary of the returns from the treatment centres established under the Public Health (Venereal Diseases) Regulations, 1916 :—

	Cardiff Royal Infirmary	Royal Hamadryad Seamen's Hospital*	Institutions elsewhere than in Cardiff	Totals
A. Number of persons residing in Cardiff dealt with during the year for the first time and found to be suffering from :—			...	
Syphilis	247	352	7	606
Soft Chancre	14	138	1	153
Gonorrhoea	296	297	12	605
Conditions other than Venereal ...	100	34	3	137
Totals	657	821	23	1,501
B. Number of attendances of all patients residing in Cardiff	9,480	13,704	556	23,740
C. Aggregate number of "in-patient days" of all patients residing in Cardiff ...	89	3,722	399	4,210
D. Number of doses of arsenobenzol compounds given to patients residing in Cardiff	1,809	1,825	30	3,664

Examination of pathological material :—

	For detection of		For Wasserman Reaction
	Spirochetes	Gonococci	
Specimens examined at Treatment Centres :—			
Cardiff Royal Infirmary ... ..	...	211	528
Royal Hamadryad Seamen's Hospital	158	171	...
Specimens examined at the Cardiff and County Public Health Laboratory	4	159	891

The number of doses of arsenobenzol compounds supplied to medical practitioners, other than at treatment centres, during the year was 843.

* The figures in this column relate to all seamen treated, whether residents of Cardiff or not.

Section 5.

MATERNITY AND CHILD WELFARE.

The activities of this Section of the Department have been somewhat hampered by lack of accommodation and by difficulties attendant upon the dovetailing of some branches of its work into voluntary machinery already in existence. A sufficient number of centres has now been established for maternity and child welfare clinics and, although most of them are by no means well adapted to the purpose, excellent work has been done. The development of the antenatal side of the scheme has, however, been disappointing. This question is fully dealt with in a report prepared early in 1924 and included here as Appendix I. The proposals contained therein have been accepted by the Managers of the Infirmary and are likely to be given effect, with unimportant modifications, at an early date.

A further important development has now been approved by the Council, making provision for four district clinics in different parts of the City, in which all branches of the clinical work of the Department will be carried on. This will allow full advantage to be taken of the new understanding with the Infirmary as to antenatal work.

Maternity and Child Welfare Consultations.—The following is a record of the work done at the several centres:—

Centre	Consultations	First Attendances	Total Attendances
City Hall	97	609	5,688
South	50	162	1,552
Glossop Terrace	98	301	3,372
Canton	101	462	6,178
Grangetown	99	467	6,043
Splott	96	522	5,911
Gabalra	41	324	3,302
Llandaff North	16	71	382
Ely	25	131	926
Totals	623	3,049	33,354

Antenatal Consultations.—Corresponding information as to the antenatal clinics is given in the following statement:—

Centre	Consultations	First Attendances	Total Attendances
City Hall	50	142	292
Glossop Terrace	46	141	336
Totals	96	283	628

Dental Clinic.—This clinic continued to develop satisfactorily. In addition to ordinary extractions and conservative dentistry, sanction was given at the end of the year to supply dentures

to pregnant or nursing women attending the consultations of the Department. The following is the record of the year's work :—

	Mothers	Children	Total
Inspected	32	40	72
Treated	22	24	46
Attendances	61	61	122
Teeth extracted	105	87	192
Teeth filled	19	6	25
Anæsthetics administered :—			
General	21	21	42
Local	8	3	11
Dressings	15	6	21
Scalings	6	...	6

Institutional Treatment.—Expectant mothers in necessitous circumstances, or suffering from abnormalities of pregnancy, emergency labour cases sent by practitioners, and children from the Child Welfare Department were treated at the Royal Infirmary (Maternity Branch) in the following numbers :—

Number of cases admitted—			
Mothers sent from Clinics	...	...	18
" " by Practitioners	...	...	18
Children	...	...	1
Total			37
Number of Patient-days			
...	...	...	771

Domiciliary Visits by Health Visitors.—The following is a summary of the visits by the Health Visitors in connection with maternity and child welfare :—

Births—First visits...	...	...	...	...	...	4,424
Routine visits	{	Infants under 1 year	...	...	...	4,532
		Children over 1 year	...	...	...	10,251
		Clinic cases	...	...	...	170
Expectant Mothers	{	First visits	...	...	...	334
		Re-visits	...	...	...	76
Visits regarding—						
Infants deaths	...	...	...	...	...	275
Still-births	...	...	...	...	...	152
Ophthalmia Neonatorum	{	First visits	...	...	...	104
		Re-visits	...	...	...	321
Puerperal Fever	...	...	...	...	...	25
Other Diseases	...	...	...	...	...	11
Financial circumstances	...	...	...	...	...	243
Other visits	...	...	...	...	...	1,250

Supply of Free Milk.—Milk was supplied free of charge in necessitous cases and on medical certificate to the following extent :—

	Fresh Milk.		Dried Milk.	
	Individual Cases	Pints of Milk Granted	Individual Cases	Pounds Granted
Children	192	9,417½	85	1,590
Mothers	159	7,461	...	...
Totals	351	16,878½	85	1,590

Training of Midwives.—Under the scheme for assisting necessitous women desirous of becoming midwives, and at the same time raising the status of training, 12 women received free studentships for attendance at the course of lectures given in the University College, and two of these, selected by examination, were provided with scholarships for practical training—one at the Queen Victoria's Jubilee Institute for Nurses and one at the Maternity Hospital (Cardiff Royal Infirmary).

Midwives Practising in Cardiff.—The number of midwives practising in Cardiff at the end of the year was 113. These may be classified as follows :—

According to qualifications :—

<i>Bona Fide</i>	27
Certificate of London Obstetrical Society	6
Certificate of Central Midwives' Board	80
Total	113

According to type of practice :—

Midwives attached to public institutions	19
Midwives conducting private maternity homes	10
Midwives dealing with less than five cases per annum	20
Other midwives	64
Total	113

The following is a brief record of the work done by, and in connection with the inspection of, midwives during the year :—

Births attended by Midwives without a Medical Practitioner	3,028*
Births attended by Midwives with a Medical Practitioner	1,388
Still-births attended by Midwives without a Medical Practitioner	98
Records of sending for medical help received	647
Disinfection of Midwives' appliances, etc.	24
Visits to Midwives by Officers of the Department	361

Medical Practitioners called in by Midwives in Emergency.—During the year the number of instances in which medical practitioners were called in by midwives in emergency was 647, and claims for emergency fees were made by practitioners in 210 cases.

* According to information supplied by midwives.

Home Nursing.—The arrangements with the Queen Victoria's Jubilee Institute for Nurses for attendance at home where nursing is required have been materially improved by a system of interchange of reports between the clinics and the nurses. The following is a record of the work done by the Institute for the Department :—

Number of Cases referred to the Institute during 1923 :—

Ophthalmia neonatorum	...	...	...	...	44
Puerperal fever	...	...	...	...	12
Other diseases	...	...	...	...	160
Total	...	...	...	...	216

Total number of visits during 1923 :—

Cases referred during 1923	...	...	...	4,352
" " " 1922	...	...	...	342
Total	...	...	...	4,694

Home Helps.—"Home Helps" were provided by the Department in 17 cases in which mothers confined at home were without adequate domestic help and without means of obtaining it.

Section 6.

HOSPITAL PROVISION.

The hospitals provided or subsidised by the Local Authority are as follows :—

Service	Name	Situation	Accommodation	Financial relationship with the Local Authority
Maternity ...	Maternity Hospital (Cardiff Royal Infirmary)	Glossop Terrace	31 beds & 25 cots	The Local Authority defrays the cost of emergency cases and of patients recommended by the Maternity and Child Welfare Officers.
Infectious Disease ...	Cardiff Sanatorium	Grangetown ...	168 beds ...	Provided by Local Authority
Smallpox ...	Cardiff Small-pox Hospital	Grangetown ...	40 beds ...	ditto.

Section 7.

LABORATORY WORK.

Cardiff and County Public Health Laboratory.—The following statement shows the work carried out for Cardiff during 1923.

Bacteriological Examinations :—

Water Supplies	...	...	...	...	407
Milks for Tubercle Bacilli	...	...	...	...	51
Milks for other Organisms	...	...	...	...	191
Dried Milks	...	...	...	...	4
Diseased Meat	...	...	...	...	13
Sputa for Tubercle Bacilli	...	...	...	...	681
Urines for Tubercle Bacilli	...	...	...	...	7
Rodents for Plague	...	...	...	...	157

Specimens for—

Diphtheria	...	...	...	...	733
Typhoid Fever	...	...	...	...	50
Malaria	...	...	...	...	53
Dysentery	...	...	...	...	3
Gonorrhœa	...	...	...	...	159
Syphilis (Wassermann Re-action)	...	...	...	...	891
Syphilis (Spirochæta Pallida)	...	...	...	...	4
Ringworm	...	...	...	...	19
Fæces for Organisms	...	...	...	...	27
Cerebro-spinal Fluids	...	...	...	...	8
Hide thongs for Anthrax	...	...	...	...	18
Other Examinations	...	...	...	...	46

Chemical Examinations :—

Water Supplies	...	...	...	...	157
Milk and Milk Products	...	...	...	...	181
Urine Analyses	...	...	...	...	1
Other Examinations	...	...	...	...	6

Total	3,867
-------	-----	-----	-----	-----	-------

The specimens for suspected diseases submitted for examination from Cardiff, together with the results of such examinations, are shown below :—

Suspected Disease	Positive Results	Negative Results	Totals	Percentage of Positive Results
Diphtheria	137	596	733	18·7
Typhoid Fever	7	43	50	14·0
Tuberculosis	199	482	681	29·2
Gonorrhœa	50	109	159	31·5
Syphilis—				
Wassermann Re-action	306	585	891	34·3
Spirochæta Pallida	1	3	4	25·0

Section 8.

ACTS, BYELAWS AND REGULATIONS.

ADOPTIVE ACTS IN FORCE IN THE CITY OF CARDIFF.

Infectious Diseases (Prevention) Act, 1890.—Adopted 19th February, 1891, coming into force on 1st May, 1891.

Public Health Acts Amendment Act, 1890, *Parts II. & III.*—Adopted 5th March, 1891, coming into force on 1st May, 1891.

Public Health Acts Amendment Act, 1907.—Certain Sections adopted 26th January, 1909, coming into force on the 16th March, 1909.

BYE-LAWS AND REGULATIONS IN FORCE IN THE CITY OF CARDIFF.

Bye-laws as to the Cleansing of Earth-closets, Privies, Ashpits and Cesspools, dated 6th July, 1881.

Bye-laws for Prevention of Nuisances arising from Snow, Filth, Dust, Ashes and Rubbish, and for the Prevention of the Keeping of Animals on any Premises so as to be Injurious to Health, dated 6th July, 1881.

Bye-laws as to Slaughter-houses, dated 10th September, 1888.

Bye-laws as to Common Lodging Houses, dated 13th March, 1891.

Bye-laws with respect to Houses Let in Lodgings, dated 13th March, 1891.

Bye-laws for the Regulation of Offensive Trades.—Blood boiler, blood drier, bone boiler, fat melter, fellmonger, glue maker, gut scraper, leather dresser, size maker, soapboiler, tallow-melter, tanner, tripe boiler, dated 12th July, 1893.

Bye-laws as to Seamen's Lodging Houses, dated 30th April, 1896.

Bye-laws with respect to New Streets and Buildings, dated 21st March, 1900.

Bye-laws for the Good Rule and Government of the City of Cardiff, dated 26th September, 1904.

Bye-laws as to Management of Mortuary, dated 7th February, 1905.

Bye-laws as to Refuse and Night Soil. For regulating the hours during which and the mode and nature of the conveyance in which any refuse, night soil, or offensive or noxious substance, matter or liquid, may be removed from any place in or be carried in, through or out of the City, dated 11th December, 1907.

Dairies, Cowsheds and Milkshops Regulations, dated 10th February, 1908.

Bye-laws with respect to the provision of Means of Escape in case of Fire in certain Factories and Workshops, dated 19th September, 1908.

Bye-laws as to the Cleansing of Footways and Pavements, dated 10th November, 1909.

Section 9.

HOUSING.

In the last Annual Report an attempt was made to arrive as accurately as possible at an estimate of the shortage of houses in Cardiff. The conclusion reached was that 3,000 to 5,000 houses were urgently required in 1921, and that not fewer than 6,000 and if possible 10,000 houses should be built between 1921 and 1931. These figures applied to the City unextended, but they probably require little modification for the City as it now stands.

During the year numerous instances of overcrowding have come under notice, and the following are only a few instances culled from the files :—

House of five rooms and kitchen, occupied by three families. One room used entirely as a living room; the other four accommodating 16 persons for sleeping. Two of the rooms gravely overcrowded; one providing only 130 cubic feet per adult, as against the minimum standard of 300 cubic feet; the other having only 250 cubic feet of air space per adult, although used both as a living and sleeping room, for which the minimum standard is 400 cubic feet. In one family, who occupy only one room for living and sleeping, the mother is in poor health; one child suffers from fainting attacks, and has been under convalescent treatment at Dulwich House; another said to be delicate; still another mentally defective and suffering from spinal trouble, as the result of which she cannot walk; a fourth child is troubled with a cough and is in poor health. The father's brother died of tuberculosis in March, 1923. In the room occupied by this family the only floor space is a path about a foot wide leading from the door to the fireplace between the beds.

House of four rooms and kitchen occupied by three different families; total number of occupants, 14. Two of the rooms are technically overcrowded.

House of four rooms and kitchen, occupied by two families—11 persons. Tenement occupied by tenant not technically overcrowded but very dirty. Tenement occupied by sub-tenant seriously overcrowded.

House of six rooms; two families—15 persons. Technically no overcrowding, but two grave cases of tuberculosis in family of tenant.

House of four rooms and kitchen; two families—14 persons. Sub-tenant's quarters overcrowded. Tenant a case of pulmonary tuberculosis recently returned from sanatorium.

House of four rooms and kitchen; two families—16 persons. Three rooms grossly overcrowded according to the usual standard.

House of six rooms and kitchen; three families—22 persons. One room technically overcrowded.

House of five rooms and kitchen; three families—17 persons. Two rooms badly overcrowded.

House of four rooms and kitchen; two families—17 persons. Three rooms, two of them very gravely overcrowded.

Several pages could be filled with instances of this kind constantly coming under the notice of the Department. According to the standard of 300 cubic feet per person for sleeping purposes, some of the worst instances are not technically cases of overcrowding, but when it is remembered that as many as three families are occupying some quite small houses, only one room of which is fitted for cooking (and that on a small scale), and in which wash-up and w.c. accommodation are provided on a scale sufficient only for one small family, it will be recognised that the conditions are anything but conducive to health or decency.

The following is a statement in the form required by the Ministry in relation to housing :—

Number of new houses erected during the year :—

(a) Total	...	...	...	...	...	...	448
(b) With State assistance under the Housing Acts, 1919 or 1923 :—							
(i) By the Local Authority	...	...	...	...	...	...	122
(ii) By other bodies or persons	...	...	...	...	...	...	—

1. *Unfit dwelling-houses.*

Inspection—(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	2,058
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	1,750
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	—
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	1,572

2. *Remedy of Defects without Service of formal Notices.*

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	1,206
--	-------

3. *Action under Statutory Powers.*

A.—Proceedings under section 28 of the Housing, Town Planning, etc., Act, 1919.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	—
(2) Number of dwelling-houses which were rendered fit—	
(a) by owners	—
(b) by Local Authority in default of owners	—
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close... ..	—

B.—Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	187
(2) Number of dwelling-houses in which defects were remedied :—	
(a) by owners	149
(b) by Local Authority in default of owners	—

C.—Proceedings under sections 17 and 18 of the Housing, Town Planning, etc., Act, 1909.

(1) Number of representations made with a view to the making of Closing Orders	—
(2) Number of dwelling-houses in respect of which Closing Orders were made	—
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	—
(4) Number of dwelling-houses in respect of which Demolition Orders were made	—
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders	—

Section 10.

FOOD INSPECTION.

It has been found desirable to bring under one heading the records of all the work done in connection with food inspection, although the organisation for this purpose is necessarily, for convenience, spread over different Sections of the Department. Thus, while the inspection of meat in slaughter-houses is under the control of Mr. Mullane, Veterinary Surgeon, and the inspection of cows in milk-farms is carried out by him, the supervision of the rest of the work connected with milk, and also of the inspection of meat and other foods in retail shops, rests with Mr. Evans, Chief Sanitary Inspector. Since the boundary-extension it has been found possible to utilise the knowledge of meat inspection possessed by several of the Assistant Sanitary Inspectors, and to add to the variety and interest of their work, by giving them responsibility for food and milk inspection in their own areas.

Meat Inspection.—The following tables set out in detail the work of the Meat Inspectors at the abattoirs during the year :—

Animals slaughtered at the municipal abattoirs and number found suffering from tuberculosis during 1923 :—

	Roath Abattoir.	Canton Abattoir.	Totals.	Found suffering from Tuberculosis	Percentage suffering from Tuberculosis
Cattle	9,122	850	9,972	649	6·51
Sheep and Lambs	37,972	6,100	44,072	...	...
Calves	10,153	594	10,747	34	0·32
Pigs	25,013	3,123	28,136	174	0·62
Totals	82,260	10,667	92,927	857	0·92

Unsound carcasses of meat surrendered at abattoirs and destroyed or otherwise dealt with by arrangement with the owners :—

Place	Carcasses of				Totals
	Beef	Mutton and Lamb.	Veal	Pork	
Roath Abattoir ...	124	51	34	103	312
Canton Abattoir ...	3	3	3	6	15
Totals ...	127	54	37	109	327

Causes of destruction of carcasses.

Cause.	Beef	Mutton and Lamb	Veal	Pork	Totals
Tuberculosis	105	...	12	66	183
Dropsy	3	8	...	1	12
Emaciation	3	11	...	2	16
Dropsy & Emaciation ...	5	7	...	2	14
Johne's Disease	9	...	...	...	9
Moribund	1	5	...	4	10
Found dead ... ..	...	11	3	6	20
Decomposition ... ..	...	4	11	...	15
Other Causes	1	8	11	28	48
Totals	127	54	37	109	327

Approximate weight of diseased or unsound meat surrendered at the municipal abattoirs and destroyed or otherwise dealt with by arrangement with the owners :—

							Tons	cwt.	lbs.
Carcases of—									
Beef	...	...	...	...	...	...	28	16	21
Veal	...	...	...	...	...	...	1	0	2
Mutton and Lamb	...	...	...	...	...	...	0	17	103
Pork	...	...	...	...	...	...	4	10	87
Part carcases of—									
Beef	...	...	...	...	...	...	3	16	48
Veal	...	...	...	...	...	...	0	0	82
Mutton and Lamb	...	...	...	...	...	...	0	1	28
Pork	...	...	...	...	...	...	0	8	90
Offals of—									
Beasts	...	...	...	...	...	...	22	18	54
Calves	...	...	...	...	...	...	0	5	82
Sheep and Lambs	...	...	...	...	...	...	0	12	19
Pigs	...	...	...	...	...	...	1	17	86
Totals							...	...	...
							65	6	33

Unsound Food exposed or intended for Sale.—The following is a record of the work done by the Assistant Sanitary Inspectors in this connection during the year:—

Number of Inspections of Shops, Stores, etc.:—

Butcher's shops ...	...	...	...	...	1,692
Provision shops ...	...	...	...	...	138
Markets ...	...	...	...	...	485
Wholesale stores	...	...	...	...	50
Fish and Fruit shops	...	...	...	...	246
Street stalls ...	...	...	...	...	23
Butter factories ...	...	...	...	...	12
Margarine stores (wholesale)	...	...	...	...	112
Railway stations	...	...	...	...	16
Other premises ...	...	...	...	...	487
					<hr/>
			Total ...	...	3,261

Approximate weight of diseased or unsound food surrendered at shops and stores and destroyed or otherwise dealt with by arrangement with the owners:—

						Tons	cwts.	lbs.
Beef ... ..	...	...	...	...	...	0	12	41
Veal, etc. ....	...	...	...	...	...	0	0	70
Mutton, Lamb, etc.	...	...	..	...	...	0	1	21
Pork, etc. ....	...	...	...	...	...	0	1	62
Rabbits and Hares	...	...	...	...	...	0	0	84
Fish ... ..	...	...	...	...	...	0	2	88
Provisions ... .	...	...	...	...	...	0	0	59
Fruit ... ..	...	...	...	...	...	1	13	49
Poultry ... ..	...	...	...	...	...	0	0	8
Offal ... ..	...	...	...	...	...	0	4	7
Vegetables ... .	...	...	...	...	...	0	19	15
Total						3	16	56

Milk Inspection.—Activities in this direction have increased very greatly during the year. The magnitude and complexity of the problems associated with the retail trade are well brought out in the following statement compiled from data gathered in May, 1923, and reproduced from last year's Report :—

Character of Business carried on by Milk Vendors.				
(1) Selling milk from shops, with or without rounds				223
(2) Selling milk from dwelling-houses, with or without rounds ...				83
(3) Selling milk by rounds only				63
(4) Selling milk from farms within the city boundary				8
(5) Selling milk by retail from farms outwith the city boundary				52
Total				429
Vendors selling 6 gallons or less per day—				
(a) included in (1) above				170
(b) „ „ (2)				4
(c) „ „ (3)				6
Total				180

Total number of gallons sold per day by all vendors ... 13,000 (approximately).

Full advantage has been taken of the power conferred on the Council by the Milk and Dairies (Amendment) Act, 1922, to raise the standard of hygiene observed by those concerned in the milk trade, and it is hoped to refer to the work done in more detail in the next Annual Report.

Tubercle Bacilli in Milk.—The conveyance of tuberculosis by milk is the most serious danger connected with this article of diet, and it is satisfactory to be able to report that the number of samples examined, in virtue of the powers granted by the Cardiff Corporation Act, 1909, has increased. The record of sampling from the commencement is shown in the following table :—

Milk Supplies examined for Tubercle Bacilli.

Year	Number of Samples.			Number containing Tubercle Bacilli.	
1911	9	...	—
1912	45	...	5
1913	42	...	1
1914	39	...	—
1915	45	...	—
1916	41	...	1
1917	32	...	—
1918	19	...	1
1919	13	...	—
1920	14	...	1
1921	27	...	2
1922	43	...	2
1923	51	...	2

In recent years the proportion of samples of mixed milk infected has been about 5 *per cent.*, which corresponds fairly closely with the proportion of cattle found tuberculous at the abattoirs. It is, of course, true that the proportion of *cows* slaughtered and found tuberculous is much higher, and five *per cent.* is probably far below the proportion of milks which would be found to contain tubercle bacilli from time to time if it were possible to examine every supply continuously throughout the year. No effective power exists at present to stop this contamination, and the only safeguard possessed by the public is the opportunity to purchase one or other of the graded milks, dealt with in a later paragraph.

Routine Bacteriological Examination of Milk.—The following record is produced here for comparison with a similar table contained in the introduction to last year's Report :—

Month	Number of Samples examined	Number containing less than 200,000 bacteria per c.c.	Number with <i>B. Coli</i> absent in 1/100 c.c.	Number attaining Grade A standard by both tests	Percentage attaining Grade A standard
January	18	16	12	12	72
February	16	14	9	9	
March	19	18	17	16	
April	13	13	10	10	
May... ..	13	13	10	10	
June	13	13	7	7	43
July	16	9	6	5	
August	8	8	4	4	
September	13	13	11	11	
October	11	8	6	6	61
November	14	10	9	8	
December	8	7	3	3	
Totals ...	162	142	104	101	62

These are samples of ordinary commercial milk, the results of the bacteriological examination being shown in such a way as to reveal what proportion attained the standard prescribed by the Milk (Special Designations) Order, 1923, for Grade A Milk. Throughout the year, 62 *per cent.* reached this standard, as compared with 54 *per cent.* last year and, most significant, the percentage in the hot months was 43 against 11 last year. It should also be noted that the results throughout the year have been better on the whole than last year, although the mean monthly temperatures were in most instances higher in 1923 than in 1922. These results are a very satisfactory measure of the improvement in milk production and handling which is now taking place from a variety of causes.

Graded Milks.—The progress in this connection has been mentioned in the introduction to this Report. In the belief that, until better methods and stronger powers are available for raising the hygienic standard of the milk trade, grading should be advocated and helped in every way, this Department has done everything within its competence to help the movement. The following is the record of the earliest bacteriological work done at the Laboratory for the purpose of controlling this branch of the trade.

Dealer	Pro-ducer	Date on which Sample was taken	Tempera-ture of milk when tested	Number of Organisms per c.c.	Presence of <i>Bacillus Coli</i>				Remarks
					1/1000 c.c.	1/100 c.c.	1/10 c.c.	1 c.c.	
A	1	June 21	16.5	14,000	—	—	—	+	Test sample before licensing
A	1	July 31	18.5	52,000	—	—	+	+	" " " "
A	1	Dec. 17	12.0	2,600	—	—	—	+	After licensing
B	2	Oct. 8	14.0	36,000	—	—	+	+	" "
B	2	" 8	13.0	29,000	—	—	+	+	" "
B	2	Nov. 21	10.0	24,000	—	—	—	+	" "
B	2	Dec. 3	8.0	5,700	—	—	—	+	" "
B	2	" 21	—	4,500	—	—	—	—	" "
C	2	" 21	—	5,000	—	—	—	—	" "
D	3	Sept. 13	14.0	112,000	—	+	+	+	Test sample before licensing
D	3	" 13	14.0	104,000	—	+	+	+	" " " "
D	3	" 21	13.5	44,000	—	—	+	+	" " " "
D	3	" 21	14.0	45,000	—	—	+	+	" " " "
D	3	" 21	14.0	1,535,000	—	+	+	+	" " " "
D	3	Oct. 4	11.0	9,000	—	—	—	+	" " " "
D	3	" 10	15.0	13,000	—	—	—	+	" " " "
D	3	" 23	16.0	9,000	—	—	—	—	" " " "
D	3	" 23	16.0	10,000	—	—	—	+	" " " "
D	3	" 23	16.0	11,000	—	—	—	—	" " " "
D	3	" 23	15.5	9,000	—	—	—	—	" " " "
D	3	Nov. 22	9.0	11,000	—	—	—	—	After licensing
D	3	Dec. 12	12.5	23,000	—	—	—	+	" "
D	3	" 28	11.0	5,200	—	—	—	—	" "

Although the latest and best results were obtained in the cold months at the end of the year, it will be found that the improvement was well maintained throughout the warmer part of 1924. They show what can be done by men who until recently were selling milk in no way better in bacterial quality than that supplied by many of the other milk vendors in the City.

Section 11.

SANITARY ADMINISTRATION.

In the following tabular statements the nature and extent of the work done during 1923 in connection with the general sanitary inspection of the district, inspection of seamen's and common lodging houses, factories, workshops and shops, and the administration of the Sale of Food and Drugs Acts and the Public Health (Milk and Cream) Regulations are given. A summary of legal proceedings taken, and particulars with regard to disinfection, baths at the Cleansing Station and bodies removed to the Mortuary are also included.

SANITARY INSPECTION OF DWELLING HOUSES, &c.

Complaints of nuisances received	...	...	...	...	1,463
Number of houses inspected for defects	...	...	...	...	2,058
Number of houses inspected and recorded	...	...	...	...	1,750
Re-inspections of houses	...	...	...	...	14,420
Drains tested with smoke	...	...	...	...	115
" " chemicals	...	...	...	...	2,308
Notices served :—					
Informal	...	...	...	...	1,572
Statutory	...	...	...	...	187
Notices complied with :—					
Informal	...	...	...	...	1,206
Statutory	...	...	...	...	149
Towns Improvement Clauses Act, 1847 :—					
Notices <i>re</i> defective shutes served	...	...	...	...	217
" " " complied with	...	...	...	...	205

In connection with the sanitary inspection of dwelling-houses, 4,608 sanitary defects were remedied, details of which are given below :—

Drains unchoked and repaired	...	...	...	...	448
Soil pipes, ventilation shafts and fresh air inlets repaired	...	...	...	...	19
New W.C. pans provided	...	...	...	...	88
New syphon traps provided	...	...	...	...	12
New gully traps provided	...	...	...	...	3
W.C.'s. repaired	...	...	...	...	8
W.C.'s. cleansed	...	...	...	...	29
Flushing apparatus provided	...	...	...	...	5
" " repaired	...	...	...	...	28
Trough outlets and waste pipes repaired	...	...	...	...	55
Roofs repaired	...	...	...	...	699
Shutes repaired	...	...	...	...	721
Down-pipes repaired	...	...	...	...	87
Chimneys repaired	...	...	...	...	34
Inside plastering repaired	...	...	...	...	247
Outside " "	...	...	...	...	114
Areas repaired	...	...	...	...	8
Yard surfaces repaired	...	...	...	...	370
Yards, etc., cleansed	...	...	...	...	43
Outhouses cleansed or repaired	...	...	...	...	14
Accumulations removed	...	...	...	...	67
Manure receptacles provided	...	...	...	...	1
Inside walls repaired	...	...	...	...	109
Doors repaired	...	...	...	...	115
Floors repaired	...	...	...	...	197
Windows repaired	...	...	...	...	374
Ceilings repaired	...	...	...	...	106
Houses, bedding, etc., cleansed	...	...	...	...	211

Ventilation improved ...	...	...	...	...	3
Water supply provided ...	...	...	...	...	91
Other nuisances abated ...	...	...	...	...	302

INSPECTION OF PREMISES PERIODICALLY INSPECTED.

Offensive Trades :—

Number on Register ...	...	...	...	...	34
Inspections ...	...	...	...	...	61
Notices served ...	...	...	...	...	1
Notices complied with ...	...	...	...	...	2

Dairies, Cowsheds and Milkshops :—

Milkshops on Register ...	...	...	...	...	341
Cowsheds on Register ...	...	...	...	...	4
Inspections of milkshops ...	...	...	...	...	2,881
Notices served ...	...	...	...	...	53
Notices complied with ...	...	...	...	...	57
Inspections of cowsheds ...	...	...	...	...	272
Notices served ...	...	...	...	...	6
Notices complied with ...	...	...	...	...	3

Miscellaneous Inspections :—

Public houses ...	...	...	...	...	521
Notices served ...	...	...	...	...	61
Notices complied with ...	...	...	...	...	50
Theatres, etc. ...	...	...	...	...	120
Notices served ...	...	...	...	...	5
Notices complied with ...	...	...	...	...	6
Fried-fish shops ...	...	...	...	...	583
Notices served ...	...	...	...	...	50
Notices complied with ...	...	...	...	...	33
Ice-cream shops ...	...	...	...	...	231
Notices served ...	...	...	...	...	15
Notices complied with ...	...	...	...	...	16
Piggeries ...	...	...	...	...	206
Notices served ...	...	...	...	...	8
Notices complied with ...	...	...	...	...	3
Houses let in lodgings ...	...	...	...	...	213
Notices served ...	...	...	...	...	17
Notices complied with ...	...	...	...	...	15
Smoke observations ...	...	...	...	...	16
Inspections of urinals ...	...	...	...	...	476
Visits to owners re notices ...	...	...	...	...	1,124
Other visits and inspections ...	...	...	...	...	9,137

Common Lodging Houses :—

Common Lodging Houses on Register	15
Day inspections ...	...	...	...	...	338
Night inspections... ..	...	...	...	...	18
Notices served ...	...	...	...	...	22
Notices complied with ...	...	...	...	...	20

Seamen's Lodging Houses :—

Seamen's Lodging Houses on Register	118
Licences granted ...	...	...	...	...	137
Licences relinquished ...	...	...	...	...	19
Day inspections ...	...	...	...	...	1,694
Night inspections... ..	...	...	...	...	136
Notices served under Byelaws ...	...	...	...	...	167

Notices under Byelaws complied with	...	...	...	159
Notices served under Public Health Acts	...	...	...	54
Notices under Public Health Acts complied with	...	...	...	53
Persons cautioned for lodging seamen without being licensed	...	...	...	26

RATS AND MICE (DESTRUCTION) ACT, 1919.

Purchases of rat poisons from Public Health Department	...	...	...	50
Amount of poisons sold	...	...	33 lbs., 94 tins, and 5 bottles	
Number of baits laid in public sewers	...	...	...	43,387
Number of baits eaten	...	...	...	11,412
Number of baits laid elsewhere	...	...	...	10,075
Number of baits eaten	...	...	...	1,887
Total number of baits laid	...	...	...	53,462
Total number of baits eaten	...	...	...	13,299

CLOSETS ON THE CONSERVANCY SYSTEM.

During 1923 no earth closets were converted to the water carriage system, and the numbers remaining on the conservancy system at 31st December, 1923, were as follows :—

Earth closets	...	...	...	...	2
Privies	...	...	...	...	147
Total	...	...	...	...	149

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

PREMISES.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	914	103	—
Workshops (including Workshop Laundries)	1,876	171	—
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	285	82	—
Total	3,075	356	—

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

PARTICULARS.	Number of Defects	
	Found.	Remedied.
Nuisances under the Public Health Acts :—		
Want of Cleanliness	151	149
Want of Ventilation	5	2
Overcrowding	...	...
Other nuisances	240	223
Sanitary accommodation	<div> insufficient ... 17 5 unsuitable or defective ... 46 35 not separate for sexes </div>	
Breach of special sanitary requirements for bakehouses (Sec. 97 to 100)	...	...
Total	459	414

3.—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.							OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.		OUTWORK IN INFECTED PREMISES, Sections 109, 110	
	Lists received from Employers						Notices served on Occupiers as to keeping or sending lists.	Instances.	Notices served.	Instances.	Orders made (S. 110).
	Sending twice in the year.			Sending once in the year.							
	Outworkers.			Outworkers.							
	Lists.	Con-tractors	Work-men.	Lists.	Con-tractors	Work-men.					
Wearing Apparel—											
(1) making, etc. ...	48	...	138	8	...	63	31	18	18	...	...
(2) cleaning & washing	...	...	...	...	...	...	...	...	...	...	...

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the Year.									Number.
Bakers ...	...	...	...	...	...	...	...	...	148
Bootmakers ...	...	...	...	...	...	...	...	...	157
Dressmakers and Milliners	...	...	...	...	...	...	...	...	169
Laundries ...	...	...	...	...	...	...	...	...	53
Tailors ...	...	...	...	...	...	...	...	...	136
Miscellaneous	...	...	...	...	...	...	...	...	517
Total number of Workshops on Register									1,180

5.—OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (Sec. 133) ...	...
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts but not under the Factory Act :—	
Notified by H.M. Inspector ...	44
Reports (of action taken) sent to H.M. Inspector ...	50
Other (Notices of Occupation of Workshops received from H.M. Inspector)	23
Underground Bakehouses in use at the end of the year ...	1

Factories and workshops on the registers at the end of the year 1923, the number of inspections made, and the number of notices served during the year :—

	Number on Registers	Number of Inspections	Number of Notices served.
WORKSHOPS :—			
Bakers	148	539	44
Bootmakers	157	210	20
Dressmakers and Milliners	169	161	5
Laundries	53	214	23
Tailors	136	158	19
Miscellaneous	517	549	58
DOMESTIC WORKSHOPS :—			
Bootmakers	42	30	2
Dressmakers and Milliners	28	4	...
Laundries	1	...	...
Tailors	18	7	...
Miscellaneous	28	4	...
WORKPLACES :—			
Miscellaneous	418	285	82
OUTWORKERS' PREMISES :—			
Tailors	151	233	18
Miscellaneous	6	3	...
FACTORIES :—			
Bakers	31	175	17
Bootmakers	22	17	...
Laundries	10	26	2
Miscellaneous	493	696	84
Totals	2,428	3,311	374

Nuisances in Factories, Workshops, &c., during the Year.

Nuisances.	Bakchouses.		Bootmakers' Premises.		Dressmakers' and Milliners' Premises.		Laundries.		Tailors' Premises.		Outworkers' Premises.		Miscellaneous.		Totals.	
	Found	Remedied	Found	Remedied	Found	Remedied	Found	Remedied	Found	Remedied	Found	Remedied	Found	Remedied	Found	Remedied
Want of cleanliness ...	40	35	7	7	...	...	7	13	5	5	8	10	83	79	151	149
Want of ventilation ...	3	...	...	...	1	...	...	...	1	...	...	...	...	2	5	2
Overcrowding ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of drainage of floors	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sanitary { Insufficient	1	...	...	...	...	...	...	...	...	...	...	...	16	5	17	5
Accom- { Unsuitable or defective	...	...	...	...	...	...	1	2	3	3	...	1	38	25	46	35
modation { Not separate for sexes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Defective or choked drains	5	3	2	4	1	1	...	1	7	6	2	2	30	31	47	48
Defective syphon traps	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Defective gully traps	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of flushing apparatus	1	1	...	...	...	...	3	5	1	2	...	...	10	15	17	25
Defective flushing apparatus	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Defective yard surfaces	...	...	...	...	...	...	3	3	...	...	...	...	20	16	28	23
Offensive accumulations	3	3	2	1	...	...	...	...	...	...	...	...	2	2	2	2
Want of manure receptacles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Defective manure receptacles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other nuisances ...	15	20	13	10	2	1	14	17	11	10	6	7	83	60	143	125
Totals ...	70	62	27	23	6	5	29	43	28	26	16	20	283	235	459	412

INSPECTION OF SHOPS UNDER THE SHOPS ACTS.

Number of Closing Orders in operation	...	...	...	15
Inspections of shops under Closing Orders	...	...	...	2,162
Infringements of Closing Orders	...	...	...	14

Other inspections and infringements under the Shops Acts :—

Visits to shops	...	...	...	...	5,198
Observations of shops	...	...	...	...	6,282
Infringements with reference to—					
Assistants' half-holiday	...	...	...	...	10
Employment of young persons	...	...	...	...	21
Closing of shops for weekly half-holiday	...	...	...	...	132

The infringements referred to above were mainly in connection with notices that are required to be exhibited by shop-keepers.

SALE OF FOOD AND DRUGS ACTS.

Samples submitted for Analysis :—

Description	Number	Genuine	Adulterated
Milk	684	663	21
Skimmed milk	15	14	1
Raw Cream	15	13	2
„ „ (informal)	23	18	5
Condensed milk (informal)	6	6	...
Dried Milk (informal)	7	7	...
Butter (informal)	1	1	...
Cake (informal)	18	18	...
Cocoa (informal)	12	12	...
Carbonate of soda (informal)	6	6	...
Beer (informal)	24	24	...
Stout (informal)	6	6	...
Totals	817	788	29

Samples of milk analysed and proportion adulterated :—

	Samples Analysed	SAMPLES ADULTERATED					
		Num- ber	Per- centage	Added Water	Defic- ient Fat	Preserv- atives	Coloured with Annatto
Wholesale—							
Taken at Railway Stations	68	6	8.8	...	6	...	...
Retail—							
Taken in shops, from carts, etc.	631	16	2.5	5	9	1	1
Totals	699	22	3.1	5	15	1	1

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912 AND 1917.

1. *Milk; and Cream not sold as Preserved Cream.*

	Number of samples examined for the presence of a preservative	Number in which a preservative was reported to be present
Milk	623	1
Cream	16	6

Nature and percentage of preservative in each case and action taken under the Regulations in regard to it :—

	No. of Sample	Nature of Preservative	Percentage of Preservative	Action taken
Milk	144	Boric Acid	0.0012	Legal proceedings not recommended.*
Cream	145	" "	0.12	In accordance with Art. VI. of the Regulations, 1912. Explanations satisfactory.
"	147	" "	0.28	
"	201	" "	0.52	Informal samples.
"	409	" "	0.37	
"	512	" "	0.34	
"	515	" "	0.61	

2. *Cream sold as Preserved Cream.*

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct :—

(i) Correct statements made	21
(ii) Statement incorrect	1†
	—
	22
	—

(b) Determinations made of milk fat in cream sold as preserved cream :—

(i) Above 35 per cent.	22
(ii) Below " " " "	—
	—
	22
	—

3. *Thickening substances.*

There was no evidence of the addition of thickening substances to the samples of cream and preserved cream taken.

* Because of the difficulty in establishing any deleterious effect in such small quantity, and because of doubt as to how the preservative came to be present.

† Informal sample.

SUMMARY OF LEGAL PROCEEDINGS.

Acts, etc., under which Proceedings were taken	Number	Fined	Cautioned	To pay costs only	Dis- missed	With- drawn	Amount of Fines and Costs	
							£	s. d.
Sale of Food & Drugs Acts...	28	11	1	6	9	1	32	9 2
Public Health (Milk and Cream) Regulations ...	1	...	...	1	...	...	0	5 0
Shops Acts	37	26	3	7	1	...	13	15 0
Public Health Act, 1875 (Sec. 116)	7	5	1	...	1	...	65	0 0
Merchant Shipping Act ...	7	6	1	...	...	...	22	0 0
Totals	80	48	6	14	11	1	£133	9 2

DISINFECTION.

Houses disinfected ... ..	...	...	...	...	...	863
Articles of bedding, clothing, etc., disinfected ... ..	...	...	...	...	...	7,375
" " " " " destroyed ... ..	...	...	...	...	...	122

CLEANSING STATION.

Baths for scabies, pediculosis, etc.	381
---	-----	-----	-----	-----	-----

MORTUARY.

Bodies admitted ... ..	...	...	...	...	...	55
						(42 males and 13 females)
Post-mortem examinations ... ..	...	...	...	...	...	27

APPENDIX I.

CARDIFF ROYAL INFIRMARY.

MATERNITY HOSPITAL.

REPORT BY THE MEDICAL OFFICER OF HEALTH.

In accordance with the instructions of the Maternity and Child Welfare Committee at their meeting of 16th January, 1924, I beg to submit herewith certain proposals for the consideration of the Committee, regarding the position which the Maternity Hospital should occupy in the general scheme for the improvement of the health of mothers and children. That continuous and increased effort is required in this direction is indicated by the following facts.

1. *Deaths of Mothers in Childbirth.*—In the first place, a large number of deaths still occur among mothers in childbirth, as the following figures prove:—

Year	Death due to Childbirth.				Year	Deaths due to Childbirth.			
1914	21	1919	...	...	...
1915	21	1920	...	...	...
1916	18	1921	...	...	...
1917	18	1922	...	...	...
1918	17	1923	...	...	...
Total					95	Total			
Grand Total					210				

It is recognised by all obstetricians that the great majority of such deaths are preventable, if the patients are placed under proper medical supervision for a sufficiently long period before confinement, and if they are confined under suitable conditions.

2. *Mortality of Infants during First Four Weeks of Life.*—In the second place, the Committee are aware that although the infant mortality has greatly diminished since the beginning of this century, that portion of it which is due to deaths of children within four weeks after birth has not declined at the same rate. This may be illustrated by the figures for the last five years, those for a longer period being not readily available:—

Year.	Deaths of Infants under 4 weeks of age from all causes.			
1919
1920
1921
1922
1923
Total				...

This still remains the greatest problem facing the Committee in relation to child welfare.* The heavy mortality is scarcely at all due to conditions affecting the child after birth. It is due to some inherent defect of the infant at birth, part of which is undoubtedly the result of remediable conditions affecting the mother before or at birth.

3. *Stillbirths.*—The proportion of all children born who are dead at birth is generally taken to be three *per cent.* throughout the country. Our knowledge of stillbirths is probably incomplete, but the number notified was 246 in 1923, and the proportion of known stillbirths to all births was 4·6 *per cent.* in Cardiff, or considerably higher than the usual estimate. Many of these, probably two-thirds, are preventable.

* Extended City.

4. *Existing Antenatal Provision.*—It is obvious, therefore, that this large mortality among the mothers, the newly born and the unborn will be most successfully attacked through an efficient scheme for attending to the mothers during the period of pregnancy, and it is with this object in view that the present antenatal clinics are carried on. It remains to consider whether the existing arrangements are adequate and how the Maternity Hospital can be made to fit in with them.

During 1923 the number of births recorded was 5,163.* During the same period the number of births attended by midwives without a doctor was 2,957.† In other words, about three-fifths of the mothers confined had had no medical advice during the critical period of pregnancy, except through the antenatal clinics of the Committee and of the Maternity Hospital. During the same period the number of new cases attending the antenatal clinics under our administration was 283. The number of Cardiff patients attending the out-patient department or clinic attached to the Hospital is not available in the records of this Department, but about 450–500 may be taken as an approximation to the figure.

At the very outside, therefore, 800, or little over a quarter, of the women confined by midwives attend any antenatal clinic. This cannot be regarded as satisfactory, especially in view of the fact that some of these women attend once and never return.

In relation, also, to the work already done, there is overlapping and inco-ordination. For instance, patients may attend the antenatal clinics of both organisations, which exist virtually for the same purpose, and, indeed, if the hospital staff consider a patient necessitous she has to be sent to our clinic so that we may satisfy ourselves as to the propriety of accepting financial responsibility for her. Further, one of the two clinics conducted by the Corporation is practically next door to the Hospital, so that the two organisations are running what might almost be described as competing clinics. While the quality of the work at our clinics is certainly not inferior, every patient being seen by a Medical Officer at every attendance, the absence of direct connection with the in-patient department of the hospital is a hindrance to their full development. Finally, the time has arrived, in my opinion, when the whole range of child welfare and antenatal clinics managed by the Corporation should be brought within the ambit of the school of midwifery both for medical students and pupil midwives, centring on the Maternity Hospital as a base. It is with these considerations in view that the following proposals are made.

5. *Proposed Alteration of Arrangements.*

(a) That a Central Antenatal Clinic be held under the medical charge of one of the honorary staff of the Hospital assisted by the nursing staff of the Hospital, and that the Assistant Medical Officer of this Department, assisted by a Health Visitor or Health Visitors, be associated with the work of the clinic so that this Department may have definite knowledge of the clinical, domestic and financial circumstances of the patients.

(b) That this clinic be held either in the Hospital or at the Corporation Clinic, 10, Glossop Terrace, and that the existing clinic at the other address be closed down.

(c) That antenatal clinics be opened on the outskirts of the City at the existing Child Welfare Centres, which will be convenient for expectant mothers living in the neighbourhood and which such women will attend unless they require special attention, or desire, or are recommended for, admission to the Hospital. These would act as feeders to the Central Clinic.

(d) That, in addition to cases sent in by practitioners in emergency, the Corporation accept responsibility for the maintenance in the Hospital of every Cardiff case recognised before admission to be complicated, and for every Cardiff patient unable to pay the full cost of treatment, recovering according to the scale already in use by this Department such part of the cost as they are able to pay. Provided that during the first year payments by the Corporation shall not exceed, say, £2,000.

(e) That effective arrangements be made for interchange of reports on the patients between the antenatal clinics, the Hospital and the clinics for mothers and children, so that the Medical Officers dealing with the patients at different stages in their history will have before them full particulars of their previous treatment.

* Actual number of confinements occurring in Cardiff, including births ultimately transferred outwards.

† According to information obtained by Health Visitors from patients.

(f) That the clinics for mothers and children be available for the teaching of students and pupil midwives, and that for this purpose the Welsh National School of Medicine be asked to recognise the position of the Assistant Medical Officer of the Authority.

6. *General.*—The Hospital Managers may ask, quite rightly, what guarantee they will have that the amount proposed will actually be paid by the Corporation. The answer is that the standard of necessity already in use and approved by the Ministry is a lenient one, and any person with a larger income will be able without hardship to bear the whole cost of treatment. The Hospital will therefore ultimately be able to recover almost the total cost of the treatment of Cardiff cases either from the Corporation or from the patients themselves. It is practically certain that if the Corporation accepted full responsibility on these lines, £2,000 would fall far short of the actual liability, so that it is necessary to safeguard ourselves by setting some such limit to expenditure for the first experimental year of working.

I am of opinion that an extension of the scheme on these lines, while meeting to a large extent the Hospital's desire for greater financial support, would add greatly to the efficiency of the maternity and child welfare scheme generally and would prove of great benefit to the mothers and infants of the working class in the City.

RALPH M. F. PICKEN,

Medical Officer of Health.

CITY HALL, CARDIFF,
19th February, 1924.

APPENDIX II.

CREMATION.

REPORT BY THE MEDICAL OFFICER OF HEALTH.

The question of disposal of the dead was dealt with by Dr. Walford in 1909,* and nothing has happened in the interim to alter anything said in his Report.

The objection to the present system of burial is that it is both wasteful and insanitary. The former contention is, I think, obvious; the latter may be easily confirmed by the examination of the subsoil water draining from burial grounds.

On the other hand, those who adhere to certain religious persuasions are opposed to cremation, and ground for burial would continue to be required for their use. This section of the population consists mainly, I understand, of Roman Catholics and Jews, constituting, so far as I can ascertain, not more than 15 *per cent.* of the population of Cardiff. I am informed by Mr. Rouse that the Roman Catholic burials have amounted to from 16 to 23 *per cent.* of the total burials at the Cemetery during the last three years, but the percentage in relation to all burials of persons dying in Cardiff would be lower. The number of Jewish burials is negligible.

Although about 85 *per cent.* of our people would not be deterred by religious scruples from adopting cremation there is no doubt that their conversion would be a slow process, partly because of inherent conservatism in such matters, partly because of the relatively high cost of this method of disposal, at least in the early period of the existence of a crematorium, and partly because of the necessity for certain legal formalities in order to prevent the concealment of crime. (The progress of cremation in this country may be shown as follows :—

NUMBER OF CREMATIONS IN GREAT BRITAIN IN EACH YEAR SINCE 1898.

1898	341	1911	1,023
1899	367	1912	1,134
1900	444	1913	1,188
1901	445	1914	1,279
1902	451	1915	1,410
1903	477	1916	1,366
1904	569	1917	1,515
1905	604	1918	1,795
1906	743	1919	2,031
1907	707	1920	1,796
1908	795	1921	1,922
1909	855	1922	2,009
1910	840		

These figures show that the number of cremations has increased to six times the number 25 years ago. In the last seven years the rate of increase has been about 75 cremations per annum. The number of bodies so disposed, however, remains at the low proportion of roughly 0.4 *per cent.* of all deaths.

It must be obvious at once that provision of a crematorium in Cardiff would not materially relieve the Board of the need for providing burial ground in Cardiff for the next 20 or 30 years. It is, however, equally obvious that the people will never be converted to this hygienic method of disposal of the dead until facilities for it are easily accessible. The Board would require to take a long view of the subject, realising that if it is considered desirable to utilise as little ground as possible for burial twenty years hence, the time to make a commencement with cremation is now.

RALPH M. F. PICKEN,

Medical Officer of Health.

CITY HALL,

CARDIFF,

2nd October, 1923.

* Annual Report for the year 1909.

APPENDIX III.

STATISTICAL TABLES OF BIRTHS, DEATHS AND INFECTIOUS DISEASE.

TABLE I.

BIRTHS IN MUNICIPAL WARDS, 1923.

Municipal Wards.	Legitimate.		Illegitimate.		Totals.		Grand Totals
	Males.	Females.	Males.	Females.	Males.	Females.	
Central	192	169	7	4	199	173	372
South	199	186	8	4	207	190	397
Cathays	176	180	6	5	182	185	367
Adamsdown	218	199	7	9	225	208	433
Riverside	178	156	9	7	187	163	350
Canton	194	185	6	3	200	188	388
Grangetown	216	195	5	4	221	199	420
Roath	141	156	1	4	142	160	302
Plasnewydd	162	179	5	2	167	181	348
Splott	283	217	9	7	292	224	516
Penylan	104	83	...	2	104	85	189
Llandaff	199	185	7	2	206	187	393
Gabalfa	244	255	2	4	246	259	505
Transferred to Cardiff—Address unknown	20	28	5	6	25	34	59
Totals	2,526	2,373	77	63	2,603	2,436	5,039

TABLE II.

CAUSES OF AND AGES AT DEATH, 1923.

CAUSES OF DEATH.	All Ages	AGE PERIODS.							
		Under 1 year	1-2 years	2-5 years	5-15 years	15-25 years	25-45 years	45-65 years	65 yrs and upwards
Enteric Fever	3	...	...	...	...	3	...	...	...
Smallpox ... ..	...	...	...	...	...	...	...	...	...
Measles	26	7	7	12	...	...	...	...	...
Scarlet Fever	2	...	1	1	...	...	...	...	...
Whooping Cough	32	17	11	4	...	...	...	...	...
Diphtheria	11	...	1	7	3	...	...	...	...
Influenza	26	3	...	...	...	...	2	14	7
Encephalitis Lethargica	5	...	1	...	2	1	...	...	...
Meningococcal Meningitis	3	...	...	...	...	1	1	1	...
Tuberculosis of Respiratory System	302	2	5	...	7	81	144	58	5
Other Tuberculous Diseases	72	8	6	15	9	11	14	7	2
Cancer, Malignant Disease	261	...	...	...	...	5	41	136	79
Rheumatic Fever	17	...	...	1	4	3	2	3	4
Diabetes	25	...	...	...	...	...	4	9	12
Cerebral Hæmorrhage, etc.	99	4	...	...	...	...	2	39	54
Heart Disease	261	...	1	1	8	6	29	88	128
Arterio-sclerosis	74	...	...	...	...	...	1	19	54
Bronchitis	198	21	7	3	1	1	11	43	111
Pneumonia (all forms)	219	40	23	8	8	11	40	49	40
Other Respiratory Diseases	41	1	1	...	...	4	8	15	12
Ulcer of Stomach or Duodenum	14	...	...	...	...	...	3	8	3
Diarrhoea, etc.	85	65	5	...	...	1	6	4	4
Appendicitis and Typhilitis	24	...	...	1	4	5	9	4	1
Cirrhosis of Liver	7	...	...	...	...	...	2	2	3
Acute and Chronic Nephritis	79	...	...	1	...	3	17	31	27
Puerperal Sepsis	9	...	...	...	...	6	3	...	...
Other Accidents and Diseases of									
Pregnancy and Parturition	14	...	...	...	...	2	12	...	...
Congenital Debility and Malforma-									
tion, Premature Birth	134	133	...	1	...	...	...	...	...
Suicide	11	...	...	...	...	1	3	5	2
Other Deaths from Violence	98	7	...	5	15	15	13	20	23
Other Defined Diseases	560	62	17	5	16	20	67	132	241
Causes ill-defined or unknown	9	2	1	...	...	...	4	2	...
Totals	2,721	372	87	65	77	180	439	689	812
Included above :—									
Tuberculosis of Nervous System	30	6	3	13	5	1	2	...	...
Acute Poliomyelitis	6	1	2	2	...	1	...	...	...

TABLE III.

DEATHS FROM VARIOUS CAUSES UNDER ONE YEAR OF AGE, 1923.

Causes of Death	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	4 weeks- 3 months	3-6 months	6-9 months	9-12 months	Totals
Measles ... ..	...	...	...	...	...	1	...	1	5	7
Whooping Cough ... ..	...	...	1	1	2	2	3	5	5	17
Diphtheria ... ..	...	...	...	...	...	...	...	...	...	...
Influenza ... ..	...	...	...	...	...	...	1	1	1	3
Tuberculosis of Nervous System ... ..	...	...	...	...	...	1	1	3	1	6
Tuberculosis of Intestines and Peritoneum. ... ..	...	...	...	...	...	1	...	...	...	1
Other Tuberculous Diseases ... ..	...	...	...	...	...	...	2	1	...	3
Syphilis	2	...	1	...	3	4	...	1	...	8
Meningitis ... ..	...	...	...	...	...	...	3	...	2	5
Convulsions	5	2	...	...	7	4	3	2	2	18
Bronchitis ... ..	...	1	2	1	4	5	5	3	4	21
Pneumonia ... ..	...	2	...	...	2	9	10	6	13	40
Other Respiratory Diseases ... ..	...	...	...	...	...	...	...	...	1	1
Inflammation of the Stomach ... ..	...	...	...	...	...	...	1	...	1	2
Diarrhoea and Enteritis	1	3	4	3	11	15	16	11	12	65
Hernia, Intestinal Obstruction ... ..	...	...	...	...	...	...	3	...	1	4
Congenital Malformations	7	6	2	1	16	5	...	3	...	24
Congenital Debility & Sclerema	7	4	2	2	15	10	3	1	2	31
Icterus	1	1	...	...	2	1	...	...	...	3
Premature Birth	61	4	3	4	72	4	2	...	...	78
Injury at Birth	5	...	...	...	5	...	...	...	...	5
Disease of Umbilicus	1	...	...	...	1	...	...	...	...	1
Atelectasis	4	...	...	...	4	...	...	...	...	4
Suffocation in Bed, and not stated	1	...	...	...	1	2	...	...	...	3
Other Causes	4	...	...	...	4	3	3	6	6	22
TOTALS	99	23	15	12	149	67	56	44	56	372
Percentage to Total Deaths under 1 year	26.6	6.2	4.0	3.2	40.0	18.0	15.1	11.8	15.1	100.0

Deaths of:—

Legitimate Infants 346

Illegitimate Infants 26

TABLE IV.

ANALYSIS OF POPULATION, BIRTHS, DEATHS, DEATHS UNDER ONE YEAR, AND DEATHS FROM CERTAIN CAUSES, TOGETHER WITH BIRTH AND DEATH-RATES PER 1,000 IN THE WHOLE CITY AND IN MUNICIPAL WARDS, 1923.

Localities	Estimated Population	Births		Deaths: All Causes		Deaths under One Year		Scarlet Fever				Whooping Cough		Diphtheria		Diarrhoea, etc., (under 2 years)		Tuberculosis: Respiratory		Tuberculosis: Other Forms		Influenza		Respiratory Diseases		
		Number	Birth-rate	Number	Death-rate	Number	per 1,000	Number	Death-rate	Number	Death-rate	Number	Death-rate	Number	Death-rate	Number	per 1,000	Number	Death-rate	Number	Death-rate	Number	Death-rate	Number	Death-rate	
Central	17,010	372	21.9	250	16.6	40	107	...	5	0.29	...	...	5	0.29	...	...	9	24.2	28	1.88	7	0.47	1	0.06	45	3.12
Lodging Houses, etc	...	...	...	32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	1	...	...	...	8	...
South	14,634	397	27.1	194	14.0	35	88	...	1	0.07	...	...	3	0.20	...	...	5	12.6	21	1.50	7	0.48	2	0.14	35	2.53
Lodging Houses, etc.	...	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	...
Cathays	18,716	367	19.6	179	9.6	16	43	...	2	0.11	...	...	2	0.11	...	...	2	5.4	17	0.91	3	0.16	1	0.05	40	2.14
Adamsdown	19,079	433	22.7	258	16.5	42	97	...	3	0.16	...	...	6	0.31	...	...	6	13.9	26	2.99	10	0.84	...	...	52	2.98
Lodging Houses, etc.	...	...	...	57	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31	...	6	...	...	...	5	...
Riverside	18,913	350	18.6	226	11.9	21	60	...	2	0.11	...	...	1	0.05	2	0.11	5	14.3	25	1.32	6	0.32	3	0.16	30	1.59
Canton	18,691	388	20.8	216	11.6	25	64	...	3	0.16	...	...	1	0.05	...	...	7	18.0	25	1.34	1	0.05	3	0.16	41	2.19
Grange town	16,440	420	25.5	212	12.9	34	81	...	...	...	...	...	2	0.12	3	0.18	7	16.7	17	1.03	7	0.43	2	0.12	36	2.19
Roath	16,420	302	18.4	193	11.7	20	66	...	...	...	...	...	1	0.06	1	0.06	3	9.9	19	1.16	4	0.24	5	0.30	32	1.95
Plasnewydd	17,242	348	20.2	189	11.0	21	60	...	3	0.17	...	...	1	0.06	...	...	2	5.7	23	1.33	4	0.23	5	0.29	24	1.39
Sploett	20,156	516	25.6	207	10.3	36	70	...	1	0.05	...	...	2	0.10	2	0.10	5	9.7	17	0.84	5	0.25	2	0.10	37	1.84
Penylan	12,984	189	14.6	125	9.6	12	63	...	...	...	...	...	...	...	...	...	3	15.9	12	0.92	2	0.15	1	0.08	13	1.00
Llandaff	15,270	393	25.7	146	9.6	32	81	...	2	0.13	...	...	3	0.20	...	...	5	12.7	9	0.59	2	0.13	...	...	34	2.23
Gabalfa	14,712	505	34.3	163	11.1	35	69	...	3	0.20	...	...	5	0.34	1	0.07	8	15.8	14	0.95	5	0.34	1	0.01	21	1.43
Institutions, etc.	5,933	59	...	63	...	3	...	2	...	...	...	...	...	...	...	...	3	...	13	...	2	...	...	...	3	...
Cardiff	226,200	5,039	22.3	2,721	12.0	372	74	3	0.01	26	0.11	...	32	0.14	11	0.05	70	13.9	302	1.33	72	0.32	26	0.11	458	2.02

TABLE V.

CASES OF ACUTE INFECTIOUS DISEASES NOTIFIED BY AGE AND SEX, 1923.

Disease	Under 1 year		1-2 years		2-3 years		3-4 years		4-5 years		5-10 years		10-15 years		15-20 years		20-35 years		35-45 years		45-65 years		65 years and over		All Ages	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes	
Smallpox	1	...	...	1	...	2	...	1	...	...	...	4	2	6	
Scarlet Fever	2	4	17	6	18	14	20	17	62	72	36	34	8	14	4	13	3	1	...	...	173	175	348	
Diphtheria	2	...	4	5	12	11	8	6	33	39	17	19	6	16	5	11	1	4	1	3	...	97	124	221
Enteric Fever	1	...	...	...	...	...	...	1	1	2	
Pneumonia	7	9	6	3	3	6	3	2	8	8	2	4	10	1	27	11	20	1	10	6	126	64	190	
Puerperal Fever	24	5	1	...	...	...	30	30	
Cerebro-spinal Fever	1	1	...	...	...	...	...	1	1	2	
Acute Poliomyelitis	1	2	7	8	8	7	...	5	...	2	1	3	...	...	2	...	...	...	...	...	...	...	19	27	46
Encephalitis Lethargica	1	...	...	...	...	...	1	...	1	2	1	...	1	...	...	...	...	2	5	7	
Dysentery	1	...	...	...	...	1	1	...	2	...	...	...	...	1	...	...	...	3	4	7	
Ophthalmia Neonatorum	58	46	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	58	46	104
Erysipelas	...	3	1	1	...	2	2	...	1	...	3	8	7	8	9	15	9	4	50	42	92
Malaria	1	...	...	...	...	...	8	...	4	...	...	...	18	...	18	
Chickenpox	...	16	21	20	25	21	28	44	40	51	45	197	218	28	40	5	7	4	3	1	1	387	428	815

TABLE VI.

NOTIFIED CASES OF ACUTE INFECTIOUS DISEASES IN MUNICIPAL WARDS AND CASES REMOVED TO HOSPITAL, 1923.

Municipal Wards	Smallpox	Scarlet Fever	Diphtheria	Etiotic Fever	Pneumonia	Psueperal Fever	Cerebro-Spinal Fever	Acute Palomylellitis	Encephalitis Lethargica	Dysentery	Ophthalmia Neonatorum	Erysipelas	Malaria	Chicken pox
Central ...	...	11	12	...	12	1	...	6	...	...	10	2	...	49
South ...	...	21	15	1	21	3	...	2	...	...	5	6	3	19
Cathays ...	...	37	26	...	25	1	...	6	2	...	9	11	...	122
Adamsdown ...	...	9	12	...	10	...	...	4	1	...	19	6	...	47
Riverside ...	1	18	7	...	9	...	1	2	...	5	3	4	1	31
Canton ...	...	24	23	1	11	6	...	2	...	...	4	7	...	60
Grangetown ...	2	26	14	...	1	4	...	11	1	...	4	6	2	48
Roath ...	...	24	16	...	16	1	...	...	1	...	6	9	...	96
Plasnewydd ...	...	20	12	...	18	6	...	2	...	...	6	8	...	64
Splott ...	3	28	22	...	16	3	...	3	2	...	21	6	3	64
Penylan ...	...	21	17	...	18	...	1	2	...	...	2	4	...	77
Llandaff ...	...	33	6	...	13	2	...	1	...	...	8	7	...	40
Gabalfa ...	...	56	29	...	7	2	...	5	...	...	5	1	...	97
Institutions ...	...	20	10	...	13	1	...	...	...	2	2	15	9	1
TOTALS ...	6	348	221	2	190	30	2	46	7	7	104	92	18	815
Cases removed to Hospital ...	6	278	169	1	...	...	1	...	2	1	...	4	...	3

APPENDIX IV. **CARDIFF SANATORIUM.** **REPORT FOR 1923.**

	0—5 years	5—15 years	15—25 years	25—45 years	45—65 years	Totals
Remaining in Hospital 30th December, 1922 :—						
Scarlet Fever	6	31	9	1	...	47
Diphtheria	7	16	5	1	...	29
Enteric Fever ... ..	...	...	...	...	...	...
Smallpox ... ..	...	...	...	...	...	...
Other Diseases ... ..	...	3	...	...	...	3
Totals	13	50	14	2	...	79
Admitted during the year 1923 :—						
Scarlet Fever	85	155	31	9	1	281
Diphtheria	45	90	28	12	2	177
Enteric Fever ... ..	...	1	...	1	...	2
Smallpox ... ..	...	2	3	2	1	8
Other Diseases	7	4	4	3	3	21
Totals	137	252	66	27	7	489
Totals under Treatment in 1923	150	302	80	29	7	568
Discharged during the year 1923 :—						
<i>(a) Recovered—</i>						
Scarlet Fever	82	165	38	8	1	294
Diphtheria	44	93	29	12	2	180
Enteric Fever ... ..	...	1	...	1	...	2
Smallpox ... ..	...	2	3	2	1	8
Other Diseases	7	7	1	3	3	21
Totals	133	268	71	26	7	505
<i>(b) Died—</i>						
Scarlet Fever	2	...	...	...	...	2
Diphtheria	2	3	...	...	...	5
Enteric Fever ... ..	...	...	...	...	...	...
Smallpox ... ..	...	...	...	...	...	...
Other Diseases ... ..	...	...	2	...	...	2
Totals	4	3	2	...	...	9
Remaining in Hospital 29th December, 1923 :—						
Scarlet Fever	7	21	2	2	...	32
Diphtheria	6	10	4	1	...	21
Enteric Fever ... ..	...	...	...	...	...	...
Smallpox ... ..	...	...	...	...	...	...
Other Diseases ... ..	...	...	1	...	...	1
Totals	13	31	7	3	...	54

Mortality per cent. of cases under treatment :—

Scarlet Fever	0.6	Enteric Fever	—
Diphtheria	2.4	Other Diseases	8.3

APPENDIX V.

CENSUS, 1921.

CARDIFF AS EXTENDED NOVEMBER, 1922.

TABLE I.

ACREAGE, POPULATION, PRIVATE FAMILIES AND DWELLINGS.

Area in Statute Acres (land and inland water)	TOTAL POPULATION				PRIVATE FAMILIES IN DWELLINGS		
	1911	1921			Private Families	Population in Private Families	Structurally Separate Dwellings occupied
	Persons	Persons	Males	Females			
11,984	196,205	219,580	108,901	110,679	47,358	207,841	35,977

TABLE II.

BUILDINGS, DWELLINGS, ROOMS AND FAMILIES.

BUILDINGS			Population 1921	(d)	(e)	Dwellings occupied by non-private families (excluded from Cols. (f)-(p)) (f)	STRUCTURALLY SEPARATE DWELLINGS OCCUPIED BY PRIVATE FAMILIES OR VAGANT							Total Dwellings (o)	Total Rooms (p)
In course of Erection (a)	Completed						Vacant on Census Night (included in Cols. (g)-(p)) (g)	Occupied by Caretaker (h)	1-3 rooms (k)	4-5 rooms (l)	6-8 rooms (m)	9 or more rooms (n)			
	Not containing Dwellings (b)	(c)													
733	...	33,931	195,477		I. Undivided private houses.	137	666	1	553	9,147	22,150	1,944	33,794	206,498	
...	...	11	89		II. Structurally divided private houses	...	...	...	19	6	1	...	26	81
...	...	19	288		III. Blocks of flats, tenements, etc.	...	2	...	35	43	4	...	82	301	
2	1,027	2,584	13,634		IV. Shops.	32	43	...	148	1,150	1,109	145	2,552	14,510	
15	1,115	356	10,092		V. Others.	117	5	...	70	102	57	10	239	1,124	
750	2,142	36,901	219,580		Total	286	716	1	825	10,448	23,321	2,099	36,693	222,514	
						Vacant on Census night			24	165	426	101	716	4,757	
					Principal buildings in Group V. "Others" above:—	Dwellings occupied by:— 1 private family ... 2 private families ... 3 or more private families ...									
4	685	101	447		{ Offices, Factories Warehouses Workshops			...	786	8,827	14,690	1,568	25,811	153,587	
...	...	21	582		Hotels			...	12	1,386	7,418	288	9,104	56,773	
...	6	55	5,122*		Institutions			...	3	70	847	142	1,062	7,397	
...	161	9	129		Places of Worship										
...	22	1	7		Places of Amusement										
						Total dwellings occupied by private families	} No. %		801 2.2	10,283 28.6	22,895 63.6	1,998 5.6	35,977 100	217,757	
						Total private families therein	...		819	11,814	32,093	2,632	47,358		

* Does not include 623 soldiers under canvas.

TABLE III.

PRIVATE FAMILIES CLASSIFIED BY SIZE OF FAMILY, ROOMS OCCUPIED, AND DENSITY OF OCCUPATION.

Number of Persons in Family	Number of Private Families occupying the following Number of Rooms.										Total Private Families		Population in Private Families	Rooms occupied	Average Number of Rooms per Person	Density of Occupation			
											No.	%				Under -3 (o)	-3 and under -5 (p)	-5 and under -7 (q)	-7 and under 1.0 (r)
	1	2	3	4	5	6-7	8-9	10 and over											
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)						
1	533	870	183	206	109	191	31	6	2,129	4.5	2,129	5,711	2.68	...	...	...	...	...	...
2	416	3,220	795	1,082	743	1,264	209	55	7,784	16.4	15,568	27,539	1.77	...	...	...	832	...	4
3	214	2,689	923	1,613	1,230	2,130	387	110	9,296	19.6	27,888	38,734	1.39	...	...	642	8,067	...	24
4	79	1,404	785	1,706	1,491	2,551	493	137	8,646	18.3	34,584	44,110	1.19	...	...	...	5,632	...	3,124
5	37	653	579	1,431	1,237	2,308	438	125	6,808	14.4	34,040	34,494	1.01	...	...	...	2,895	...	7,165
6	11	268	436	960	923	1,779	351	92	4,820	10.2	28,920	25,427	0.88	...	...	...	8,352	...	5,538
7	...	90	257	645	625	1,295	238	94	3,246	6.8	22,722	17,889	0.79	...	...	...	4,515	...	10,864
8	...	43	150	394	439	848	144	59	2,077	4.4	16,616	11,545	0.69	...	...	...	6,664	...	6,784
9	...	18	73	222	255	569	83	39	1,259	2.7	11,331	7,171	0.63	...	...	...	1,694	...	418
10	...	4	23	137	148	332	55	27	726	1.5	7,260	4,211	0.58	...	...	...	3,970	...	1,380
11	...	...	6	40	50	154	34	12	296	0.6	3,256	1,812	0.56	...	...	...	1,694	...	96
12	...	2	1	15	24	74	15	4	135	0.3	1,620	824	0.51	...	...	...	494	...	325
13	...	...	...	4	12	35	12	2	65	0.1	845	424	0.50	...	...	...	252	...	182
14	...	...	1	1	4	21	6	3	36	0.1	504	242	0.48	...	...	...	342	...	169
15 and over	...	...	...	1	...	19	11	4	35	0.1	558	267	0.48	...	...	...	...	...	...
Total private families	1,292	9,261	4,212	8,457	7,290	13,570	2,507	769	47,358	100.0	...	...	...	...	...	...	...	...	...
Population in private families	2,588	27,066	17,171	38,685	35,684	69,448	12,968	4,231	...	...	207,841	...	...	1,903	15,343	50,362	37,373	...	...
Rooms occupied	1,292	18,517	12,621	33,823	36,448	85,136	20,896	8,667	...	...	...	217,400	1.04	...	...	...	...	...	...
	2.7	19.6	8.8	17.9	15.4	28.7	5.3	1.6	100.0	...	1921.	Percentages of Families living in various units of occupation	...	...	...	...	...	...	...

TABLE IV.

INSTITUTIONS: NUMBER, TOTAL POPULATION, AND INMATES OF CERTAIN CLASSES OF INSTITUTIONS AND OTHER SPECIAL PREMISES.

	Number of Institutions	TOTAL POPULATION*			INMATES ONLY (Classes 1-13)		
		Persons	Males	Females	Persons	Males	Females
1. Workhouses	2	1,369	737	632	1,254	714	540
3. Other Poor Law Institutions	20	354	180	174	302	178	124
6. Homes, etc., for the Blind	1	9	...	9	6	...	6
8. Hospitals	8	986	447	539	653	420	233
9. Convalescent and Nursing Homes	16	256	51	205	148	35	113
10. Prisons	1	217	191	26	206	186	20
11. Reformatory Schools, etc.	1	4	1	3	...	...	...
14. Naval or Military Barracks	11	1,563	1,490	73	...	...	...
16. Ships	233	1,542	1,407	135	...	...	...
17. Inland Barges and Boats	1	1	1	...	...	...	...
18. Barns, Sheds, etc. (including vagrants) ... ..	...	145	115	30	...	...	...

TABLE VI.

AGES (QUINQUENNIAL GROUPS) AND MARITAL CONDITIONS.

Age Last Birthday	Persons	MALES					FEMALES					PERCENTAGES	
		Total	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced	Males	Females
All	219,580	108,901	62,396	42,905	3,543	57	110,679	60,057	42,238	8,345	39	Sex Percentages 49.6	50.4
Ages {	...	100.0	57.3	39.4	3.2	0.1	100.0	54.3	38.2	7.5	0.0	Age Percentages 100.0	100.0
0-4	19,490	9,835	9,835	...	...	...	9,655	9,655	...	...	...	9.0	8.7
5-9	20,768	10,336	10,336	...	...	...	10,432	10,432	...	...	...	9.5	9.4
10-14	20,802	10,323	10,323	...	...	...	10,479	10,479	...	...	...	9.5	9.5
15-19	21,088	10,098	10,051	...	...	...	10,990	10,792	...	...	...	9.3	9.9
20-24	20,934	9,882	8,420	47	...	...	11,052	8,136	197	1	...	9.1	10.0
25-29	19,087	9,813	5,120	1,454	8	...	9,874	4,009	2,880	34	2	9.0	8.9
30-34	17,233	8,693	2,480	4,627	60	6	8,540	1,897	5,644	213	8	8.0	7.7
35-39	15,868	7,910	1,565	6,099	106	8	7,958	1,345	6,305	333	5	7.2	7.2
40-44	14,175	7,052	1,164	5,676	173	8	7,123	970	6,189	418	6	6.5	6.4
45-49	12,966	6,597	959	5,377	203	9	6,369	757	5,623	522	8	6.1	5.8
50-54	10,961	5,660	689	5,377	253	8	5,301	535	4,910	698	4	5.2	4.8
55-59	8,817	4,560	531	3,605	401	6	4,257	370	3,902	860	4	4.2	3.8
60-64	6,599	3,357	399	2,447	421	3	3,242	294	2,892	994	1	3.1	2.9
65-69	4,581	2,321	265	1,566	505	6	2,260	157	1,875	1,072	1	2.1	2.0
70-74	2,865	1,346	149	803	489	1	1,519	112	1,026	1,077	...	1.2	1.4
75-79	1,730	743	77	339	392	2	987	66	501	906	...	0.7	0.9
80-84	728	284	24	110	327	...	444	35	233	688	...	0.2	0.4
85-89	222	73	7	21	150	...	149	10	48	361	...	0.1	0.1
90-94	57	17	2	6	45	...	40	5	12	127	...	0.0	0.0
95 & over	9	1	...	...	9	...	8	1	...	35	...	0.0	0.0
					1	...			1	6	...		

TABLE VII.

OCCUPATIONS BY SEX OF PERSONS AGED 12 YEARS AND OVER.

Occupation						Males	Females
TOTAL POPULATION						108,901	110,679
Under 12 years of age						24,328	24,201
Aged 12 years or over						84,573	86,478
Total Occupied, aged 12 years and over						75,628	25,399
Total Unoccupied and Retired, aged 12 years and over						8,952	61,093
I. Fishermen						104	...
II. Agricultural Occupations						866	69
III. Mining and Quarrying Occupations						1,057	...
1. In Coal and Shale Mines						1,004	...
2. In Metalliferous Mines and Workings						10	...
3. In Other Mines and Quarries						42	...
4. At Oil Wells and Brine Wells						1	...
IV. Workers in the Treatment of Non-Metalliferous Mine and Quarry Products (excluding Workers in Gas Works)						396	3
1. Makers of Coke and By-Products (Excluding Tar Distilling)						7	1
2. Makers of Other Products						389	2
V. Makers of Bricks, Pottery and Glass						115	11
1. Makers of Bricks, Pottery and Earthenware						69	3
2. Makers of Glass and Glass Ware						46	8
VI. Workers in Chemical Processes : Makers of Paints, Oils, etc.						132	9
1. Workers in Chemical Processes						75	4
2. Makers of Paints, Oils (not Mineral), etc.						57	5
VII. Metal Workers (not Electro Plate or Precious Metals)						8,914	154
1. Employers, Managers, Foremen						394	6
2. Furnacemen (not Foundry) and Puddlers						171	...
3. Rollers						21	2
4. Foundry Workers						411	3
5. Smiths and Skilled Forge Workers						857	1
6. Machine Tool Workers						293	5
7. Fitters and Millwrights						1,881	2
8. Other Workers						4,886	135
VIII. Workers in Precious Metals and Electro Plate						18	5
IX. Electrical Apparatus Makers and Fitters (not elsewhere enumerated) and Electricians						930	16
X. Makers of Watches, Clocks and Scientific Instruments						104	3

TABLE VII.—*con.*

Occupation		Males	Females
XI.	Workers in Skins and Leather, and Makers of Leather and Leather Substitute Goods (not Boots or Shoes) ...	95	30
	1. Furriers, Skinners, Tanners and Leather Dressers ...	19	14
	2. Makers of Leather and Leather Substitute Goods (not Boots or Shoes) ...	76	16
XII.	Textile Workers ...	129	91
XIII.	Makers of Textile Goods and Articles of Dress ...	1,247	2,581
XIV.	Makers of Foods, Drinks and Tobacco ...	1,462	787
	1. Makers of Foods ...	1,187	404
	2. Makers of Drinks ...	269	217
	3. Makers of Tobacco, Cigars, Cigarettes, Snuff ...	6	166
XV.	Workers in Wood and Furniture ...	3,019	96
	1. Workers in Wood ...	2,813	55
	2. Other Workers ...	206	41
XVI.	Makers of and Workers in Paper, Printers, Bookbinders, Photographers, etc. ...	1,062	484
	1. Makers of Paper, Pulp, Straw and Card Board ...	200	86
	2. Printers, Bookbinders and Photographers ...	836	335
	3. Makers of Stationery, Cardboard Boxes and Other Workers in Paper ...	26	63
XVII.	Builders, Bricklayers, Stone and Slate Workers, Contractors	3,417	15
XVIII.	Painters and Decorators (not Pottery) ...	1,473	8
XIX.	Workers in other Materials ...	31	8
	1. Workers in Rubber, Vulcanite, Ebonite ...	16	4
	2. Workers in Bone, Horn, Ivory, Celluloid, etc. ...	2	...
	3. Workers in Other Materials ...	13	4
XX.	Workers in Mixed or Undefined Materials (not elsewhere enumerated) ...	1,312	67
	1. Makers of Musical Instruments (not Piano, etc., Case Makers) ...	78	1
	2. Makers of Vehicles (See also under Metal Workers and Wood Workers) ...	382	11
	3. Builders of Ships and Boats (See also under Metal Workers and Wood Workers) ...	678	1
	4. Other Workers ...	174	54
XXI.	Persons employed in Gas, Water and Electricity Undertakings (not elsewhere enumerated) ...	323	1

TABLE VII.—*con.*

Occupation					Males	Females
XXII.	Persons employed in Transport and Communication ...				19,617	498
	1.	Railway Workers	...	...	3,689	23
	2.	Road Transport Workers	...	...	3,447	20
	3.	Water Transport Workers	...	...	10,140	30
	4.	Others Workers in Transport and Communication	...	...	2,341	425
XXIII.	Commercial, Finance and Insurance Occupations (excluding Clerks) ...				7,967	4,036
	1.	Commercial Occupations	...	...	7,314	4,005
	2.	Persons Employed in Finance and Insurance	...	...	653	31
XXIV.	Persons employed in Public Administration and Defence (excluding Professional Men and Typists) ...				2,702	388
	1.	Public Administration...	...	...	1,916	388
	2.	Defence	...	...	786	...
XXV.	Professional Occupations (excluding Clerical Staff) ...				2,051	2,081
XXVI.	Persons employed in Entertainment and Sport ...				429	273
XXVII.	Persons engaged in Personal Service (including Institutions, Clubs, Hotels, etc.) ...				1,825	9,397
XXVIII.	Clerks and Draughtsmen (not Civil Service or Local Authority) ; Typists ...				4,807	3,131
XXIX.	Warehousemen, Storekeepers and Packers ...				1,402	496
XXX.	Stationary Engine Drivers, Dynamo and Motor Attendants...				1,258	...
XXXI.	Other and Undefined Workers ...				7,364	307
XXXII.	Retired or Not Gainfully Occupied ...				8,952	61,093

APPENDIX VI.

METEOROLOGICAL OBSERVATIONS TAKEN AT PENYLAN, CARDIFF,
DURING 1923.

TABLE I.
BAROMETRIC PRESSURE AND RELATIVE HUMIDITY.

1923.	Attached Thermometer (Mean)	Mean Barometric Pressure*		Hygrometer*.		
		Uncorrected	Reduced to Mean Sea Level and Temp. 32° F.	Dry Bulb (Mean)	Wet Bulb (Mean)	Mean Relative Humidity.
	°F.	Inches	Inches	°F.	°F.	%
January	44	30.008	30.226	42.8	41.3	87
February	46	29.347	29.554	43.5	41.8	87
March	46	29.818	30.029	44.1	41.9	83
April	49	29.540	29.740	46.2	43.5	79
May	52	29.761	29.954	48.3	45.3	79
June	58	30.003	30.177	55.5	51.5	75
July	65	29.862	30.015	62.2	58.6	79
August	64	29.792	29.947	58.4	55.5	82
September	58	29.824	30.157	54.3	51.8	82
October	54	29.536	29.721	50.2	48.0	85
November	45	29.595	29.809	38.3	36.8	86
December	43	29.783	30.080	41.5	40.1	88
Means	52	29.739	29.932	48.8	46.3	83

* From observations at 9 a.m. and 9 p.m.

TABLE II.
TEMPERATURE.

1923.	Absolute Maximum	Absolute Minimum	Mean of Maximum	Mean of Minimum	Mean Temperature	Difference from Average (34 years)
	° F.	° F.	° F.	° F.	° F.	° F.
January	52	31	47.4	38.2	42.8	+ 3.1
February	54	30	48.4	39.5	43.9	+ 3.7
March	60	35	49.8	39.4	44.6	+ 2.3
April	60	31	52.9	40.5	46.7	+ 4
May	75	35	56.3	42.8	49.5	— 3.4
June	72	44	63.0	49.0	56.0	— 1.3
July	90	47	69.7	56.3	63.0	+ 2.4
August	78	41	66.4	52.8	59.6	— 6
September	73	40	61.4	48.5	54.9	— 1.4
October	61	34	55.9	45.0	50.4	+ 1
November	56	24	45.7	33.7	39.7	— 4.5
December	52	27	46.7	36.1	41.4	+ 4
	Highest 90	Lowest 24	Mean 55.3	Mean 43.5	Mean 49.4	+ 1

TABLE III.

TERRESTRIAL RADIATION, UNDERGROUND TEMPERATURE, SOLAR RADIATION AND
SUNSHINE.

1923.	Temperatures.				Bright Sunshine. Total Duration	Bright Sunshine. Difference from Average (15 years)
	Grass Minimum (mean)	Underground (mean)		Solar Maximum (mean)		
		1ft.	4ft.			
	°F.	°F.	°F.	°F.	Hours	Hours
January	34.9	40.5	44.1	68	60.2	+ 8.4
February	36.6	43.5	44.9	81	64.1	— 11.9
March	35.3	44.1	45.1	94	102.3	— 7.3
April	36.6	47.9	47.4	101	126.4	— 52.5
May	38.9	52.1	50.1	116	201.8	— 18.4
June	45.3	56.8	52.7	119	182.9	— 37.7
July	53.9	63.2	57.7	122	182.8	— 29.3
August	48.8	60.8	58.8	122	220.7	+ 35.3
September	44.1	56.0	56.8	110	158.9	+ 12.5
October	41.9	51.5	54.1	94	95.3	— 12.6
November... ..	28.7	41.0	49.3	78	102.9	+ 39.1
December	31.8	39.0	43.8	69	57.2	+ 7.3
	39.7 (mean)	49.7 (mean)	50.4 (mean)	98 (mean)	1,555.5*	— 67.1

* = 35% of possible duration. Daily average, 4.25 hours.

TABLE IV.

RAINFALL.

1923.	Total Fall.	Difference from Average (34 years)	Greatest Fall in 24 hrs.*		Number of Rain-days (0.01 inches or more).
			Amount	Day	
	Inches	Inches	Inches		
January	2.46	— 1.26	.69	5th	19
February	8.50	+ 5.60	.98	1st	23
March	1.57	— 1.74	.32	1st	12
April	2.86	+ .20	.41	24th	17
May	2.58	+ .16	.63	14th	22
June ... ..	.76	— 1.99	.33	15th	5
July	2.16	— .58	.55	27th & 31st	13
August	3.79	— .36	1.16	23rd	16
September	3.54	+ .64	.97	17th	14
October	6.90	+ 2.18	.86	21st	27
November	3.51	+ .13	1.37	13th	14
December	4.16	— .54	.85	25th	20
	42.79	+ 2.44	Greatest for Year :— 1.37 inches on 13th Nov.		202

Measured at 9 a.m. each day for the preceding 24 hours. * 24 hours ended 9 a.m. next day.

APPENDIX VII.

MENTAL DEFICIENCY ACT, 1913.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR ENDED 31ST DECEMBER, 1923.

The usual statistical tables, presenting in detail the work of the Department in connection with mentally defective persons, are submitted herewith, but it may be useful to summarise briefly the information they contain and to add a few comments.

At 31st December last, the number of mentally defective persons known to the Local Authority was 185. Of these, 124 were under supervision at home and 61 were in various Institutions for the care of Mentally Defectives, and chargeable to the Authority. In addition, a certain number, undetermined, are in Institutions, having been admitted from Cardiff at the instance of parents or other Authorities without reference to this Department. The number of mentally defective children in attendance at Virgil Street School at 31st December was 25; a further group of 48 suspects have not yet been definitely certified by the School Medical Officers.

During the year, 95 cases were examined under the Act, as against 69 in 1922. Of these, 36 were new cases and 59 were re-examinations, as compared with 26 and 43 respectively in 1922. In 22 instances, patients summoned for examination failed to turn up, a circumstance which leads to considerable loss of time to the staff and interferes with the completeness of the departmental records. There is, of course, no compulsory power of examination under the Act.

Eleven patients were removed to Institutions at the instance of the Local Authority, as compared with 10 in 1922.

In Table XIII. particulars are given of 23 cases who are regarded by the officers of the Department as urgently requiring removal to institutions, and the classification in the penultimate column is based on the 'Definitions' of urgent cases accompanying the Board of Control's Circular of 9th August, 1921.

During the year the Committee have had under consideration the question of adequate accommodation for cases of mental deficiency occurring in this area, and in this connection have held conferences with representatives of the Special Schools Committee and of the Board of Guardians. It is to be regretted that the Guardians have felt bound to take no further part in these deliberations as the result of the decision of the Ministry of Health that a Poor Law Authority has no power to combine with the Local Authority to provide an institution for mentally defective persons. Meetings, however, of representatives of the Mental Deficiency and Special Schools Committees are continuing, but there appears also to be some obstacle to combination of a Mental Deficiency and an Education Authority for the purposes of such an institution.

In relation to institutional treatment it is of interest to observe that the Board of Control have made the following suggestion in a letter of 28th November last:—"I am to suggest for the consideration of your Local Authority that it might be possible to introduce further industrial training at Cardiff (Ely) Poor Law Institution." The Board are apparently contemplating the conversion by the Guardians of Ely Institution into a more suitable place for cases of mental deficiency.

In compliance with the Board's request in a Circular of 14th June, 1923, suggestions were made by the Committee for revision of the Provisional Regulations under the Mental Deficiency Act, 1913, with a view to obtaining greater uniformity of procedure when cases in institutions are being considered for discharge.

RALPH M. F. PICKEN,

CITY HALL, CARDIFF,
22nd January, 1924.

Medical Officer of Health.

STATISTICAL TABLES.

TABLE I.

Home cases under observation during the year 1923.

(a) Cases under observation at home at 1st January, 1923	...	108
(b) Cases coming under observation at home during the year	...	48
(c) Total number dealt with	...	156
(d) Cases ceasing to be under observation	...	32
(e) Cases remaining under observation at home at 31st Dec., 1923...		124

TABLE II.

Cases coming under observation at home during the year—See Table I (b).

(a) New cases coming under observation and examined	...	29
(b) New cases coming under observation but not yet examined	...	18
(c) Cases discharged to their own homes from institutions	...	1
		48

TABLE III.

Cases ceasing to be under observation—See Table I. (d).

(a) Sent to Institutions by Local Authority	...	...	...	11
(b) " " " by parents	...	...	...	5
(c) Left the district	...	...	...	5
(d) Transferred to other Authorities	...	...	...	3
(e) Deceased (home cases)	...	...	...	4
(f) Not mentally defective	...	...	...	4
				32

TABLE IV.

Mental Defectives under observation at home at 31st December, 1923—See Table I (e).

	31st December, 1923.			1st January, 1923.
	Male	Female	Totals	Totals
Idiots ...	7	8	15	10
Imbeciles ...	8	9	17	17
Feeble-minded ...	23	20	43	39
Moral Imbeciles ...	...	1	1	1
Unclassified or not examined	17	31	48	41
Totals	55	69	124	108

TABLE V.

Examinations during the year.

New cases examined—See Table II. (a)	...	...	...	29
Cases examined but previously under observation—Included in Table I. (a)	...	...	...	7
				36

TABLE VI.

Cases re-examined during the year.

						1923		1922
Idiots	...	...	...	...	...	10	...	7
Imbeciles	...	...	...	...	...	20	...	17
Feeble-minded	...	...	...	...	...	24	...	17
Moral Imbeciles	...	...	...	...	...	4	...	2
Not Defective	...	...	...	...	...	1	...	—
						—		—
						59		43
						—		—

TABLE VII.

Cases that failed to attend for examination or re-examination.

						1923		1922
Number	...	...	...	...	...	22	...	14

TABLE VIII.

Visits paid by the Visiting Officer.

						1923		1922
Number	...	...	...	...	...	552	...	532

TABLE IX.

Ages and grading of new cases examined during the year—See Table V.

Ages— Years			Grading.								Totals	
			Idiots		Imbeciles		Feebleminded		Not Mentally Defective			
Male	Female	Male	Female	Male	Female	Male	Female					
2	1	...	...	...	...	...	...	1		
3	1	1	...	...	...	...	...	2		
4	1	...	...	...	...	...	2		
5	1	...	...	1	...	2		
6	1	...	...	...	1		
7	1	...	...	...	...	1		
8	1	...	...	...	1		
9	1	...	1	...	2		
11	1	...	1	...	...	...	2		
12	1	...	...	...	...	...	...	1		
13	1	...	...	1		
14	1	...	...	1	...	...	2		
15	1	1	...	3		
16	1	2	...	1	2	...	6		
18	1	...	1		
19	1	...	2		
20	1	...	2		
28	1	1		
30	1	...	1		
39	1	...	1		
40	1	...	...	...	1		
Totals			...	3	5	5	5	4	10	—	4	36

TABLE X.

Number of mental defectives in Institutions chargeable against the Mental Deficiency Committee.

1. Remaining in Institutions at 1st January, 1923	...	...	53
2. Admitted during 1923	...	...	11
			— 64
3. (a) Died in Institutions	...	...	2
(b) Discharged from Institution*	...	...	1
			— 3
4. Remaining in Institutions at 31st December, 1923	...	...	61†

TABLE XI.

Number of mental defectives removed to Institutions during the year at the instance of the Local Authority—See Table III. (a).

			1923	1922
Obligatory Cases	{	Idiots	...	2
		Imbeciles	...	3
		Feeble-minded	...	4
		Total	10	9
Permissive Cases	{	Idiots	1§	1
		Imbeciles	—	—
		Feeble-minded	—	—
		Grand Total	11	10

TABLE XII.

Summary of Defectives placed and remaining in Institutions by the Local Authority at 31st December, 1923—See Table X. (4).

Name of Institution	Idiots	Imbeciles	Feeble-minded	Moral Imbeciles	Totals	
					1923	1922
Stoke Park Colony, Bristol	2	2	2	3	9	9
Metropolitan Asylums Board	4	4	...	...	8	6
Prudhoe Hall Colony, Northumberland	...	...	4	...	4	2
Brentry Institution, Nr. Bristol	...	2	...	...	2	2
House of Help, Bath	...	...	1	...	1	1
St. Joseph's Home, Suffolk	...	...	1	...	1	1
St. Francis' Home, Buntingford	...	...	3	...	3	2
Pield Heath House, Middlesex	...	1	1	...	2	2
Ely Institution, Cardiff	1	3	18	1	23	20
West Hartlepool	...	...	...	...	—	2||
Drymma Hall, Neath	1	...	...	...	1	1
Calderstones Institution, Lancs.	3	...	3	...	6	5
Seafeld House, Seaforth, Lancs.	...	1	...	...	1	—
					61†	53

* As not mentally defective.

† Five permissive and 56 obligatory.

§ Since deceased.

|| These 2 were transferred to Prudhoe Hall Colony during the year.

‡ Five permissive and 56 obligatory.

TABLE XIII.

Mentally Defective Persons "Urgent" in the sense of the Board of Control's Circular of 1921.

Classification	No.	Initials	Sex	Age	Remarks	Section of Circular	Action taken
Idiots ...	1	A.H.H.	M.	8	Parent willing	VI.	Unable to secure vacancy
	2	G.M.	M.	7	Parents unwilling	VI.	—
	3	M.K.	M.	8	" "	VI.	—
	4	B.R.	F.	10	" "	VI.	—
	5	M.M.	F.	11	" "	VI.	—
	6	N.S.	F.	5	Parent unwilling	VI.	—
	7	D.O'S.	M.	3	Parent willing.	VI.	Unable to secure vacancy
	8	E.J.P.	M.	6	Parents unwilling	VI.	—
	9	L.L.S.	F.	12	Parents willing conditionally	VI.	—
	10	W.P.	M.	12	Parent unwilling	VI.	—
	11	L.P.	F.	11	" "	VI.	—
	12	I.N.	F.	11	" "	VI.	—
	13	S.S.	F.	4	" "	VI.	—
Imbeciles ...	1	J.C.	M.	7	Parents willing	VI.	Unable to secure vacancy
	2	R.F.	M.	7	" "	VI.	Vacancy now secured
	3	M.S.	F.	14	Parents willing conditionally	VI.	Unable to secure vacancy
Feeble-minded	4	K.D.	F.	8	Parents unwilling	VI.	—
	1	A.B.	F.	17	Parents unwilling	II.	—
	2	W.J.G.	M.	18	Parents willing conditionally	IV.	—
	3	H.P.	F.	18	Parents willing	II.	Unable to secure vacancy
	4	H.J.	F.	39	No evidence for a Petition	II.	—
	5	M.C.W.	F.	16	Parents unwilling	II.	—
	6	M.E.H.	F.	17	Parent "	II.	—

TABLE XIV.

Examination of Mentally Defective School Children during the year.

Examined under the Mental Deficiency Act	...	...	...	42
Not incapable by reason of mental defect of receiving benefit from instruction in an ordinary elementary school	...	...	...	19
Feeble-minded and as such recommended to be sent to the Special School for Mentally Defectives	...	...	...	7
Feeble-minded but unsuitable for a Special School and not yet reported to the Mental Deficiency Committee	...	...	...	3
Imbeciles and as such reported to the Mental Deficiency Committee	...	...	...	10
Moral Imbeciles and as such reported to the Mental Deficiency Committee	...	...	...	—
Idiots and as such reported to the Mental Deficiency Committee	...	...	...	3
Number of Re-examinations:—				
Children attending Virgil Street Special School	...	...	...	32
Other children	...	...	...	4
Re-classified	...	...	...	2